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ABSTRACT

The 32 chapters in this book (presented in two volumes) cover a continuum of issues in comprehensive school health education, including a review of the past and a vision of the future. Volume 1 opens with a foreword by Dr. M. Jocelyn Elders (Surgeon General of the United States) and provides the following chapters: (1) "School Health Education: What Are the Possibilities?" (M. V. Hamburg); (2) "School Health Education Today: Highlights and Milestones" (A. E. Nolte); (3) "An Essential Strategy To Improve the Health and Education of Americans" (L. J. Kolbe); (4) "Planning for a Comprehensive School Health Program" (W. M. Kane); (5) "Instructional Planning for Health Education" (E. E. Ames); (6) "The Importance of a Healthy School Environment" (A. C. Henderson); (7) "School Health Services: Issues and Challenges" (D. D. Allensworth); (8) "Integrating School Counseling and Health Education Programs" (N. S. Perry); (9) "Health Promotion at the School Worksite" (J. C. Berryman); (10) "The Child Nutrition Program as a Partner in Comprehensive School Health" (P. Naworski); (11) "Personal and Social Skill Development Is Basic" (J. V. Fetro); (12) "Preventing Teenage Pregnancy: The Necessity for School and Community Collaboration" (M. L. Vincent, B. F. Geiger, and A. S. Willis); (13) "Tobacco Use Prevention" (N. Matza, R. Loya); (14) "Alcohol and Other Drug Use Prevention Education" (B. E. Pruitt); (15) "Nutrition Issues" (G. C. Frank); (16) "Educating About HIV/AIDS" (K. R. Miner); (17) "Injury Prevention" (D. A. Sleet); (18) "Physical Fitness: A Vital Component for Total Health and High-Level Wellness" (R. L. Papenfuss). In the second volume the chapters are: (19) "The Science Base for Comprehensive Health Education" (R. S. Gold); (20) "Program Evaluation Versus Research: More Differences Than Similarities" (D. C. Iverson); (21) "School Restructuring: How Is the Health Program Affected?" (E. H. Jones and others); (22) "Categorical Funding in a Comprehensive World" (K. M. Wilbur); (23) "Promoting Multicultural Sensitivity among Educators" (W. P. Buckner, Jr.); (24) "Involving Families in School Health Education: An Essential Partnership" (D. A. Birch); (25) "Peer Education: Students Helping Students" (B. J. Berkin); (26) "Dealing with Controversy in the School Health Program" (M. M. Van Patten); (27) "Preservice Education: Providing Health Knowledge for All Teachers" (J. W. Varnes); (28) "Why Is Inservice Training Essential?" (A. Burks); (29) "Professional Preparation" (J. C. Drolet); (30) "Credentialing: Assuring Quality in School Health Education (A. Tabu); (31) "Voluntary Health Organizations: The Untapped Resource" (J. R. Seffrin); and (32) "Community/School Partnerships: A Vision for the Future. (D. K. Siri). Appendixes include the National Education Goals, reports, and recommendations. (LL)

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The Comprehensive School Hea

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Volume One

Promoting Hea Through Educa

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The Comprehensive School Health Challenge

The Comprehensive School Health Challenge

Promoting Health Through Education

Volume One

Peter Cortese, DrPH, CHES, and
Kathleen Middleton, MS, CHES, Eds.

ETR ASSOCIATES
Santa Cruz, California
1994

ETR Associates (Education, Training and Research) is a nonprofit organization committed to fostering the health, well-being and cultural diversity of individuals, families, schools and communities. The publishing program of ETR Associates provides books and materials that empower young people and adults with the skills to make positive health choices. We invite health professionals to learn more about our high-quality publishing, training and research programs by contacting us at P.O. Box 1830, Santa Cruz, CA 95061-1830.

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Dedication

To Dr. Elena Sliepcevich, whose vision of the possibilities in comprehensive school health continues to light the way.

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Foreword

In 1987, after 26 years of practice as a pediatrician and specialist in endocrinology, I was approached by then-Governor Bill Clinton with an intriguing offer—to serve as director of the Arkansas Department of Health. It was an offer I couldn't refuse. One of my earliest tasks was to learn more about the status of children's health in Arkansas and the nation. Even after a lifetime of pediatric practice, I was shocked by what I learned. Most disturbing to me was the fact that teenagers were the only population group in the nation experiencing a rising mortality rate. And these children were *having* children at alarming rates, creating the hub in the cycle of American poverty. These facts propelled me into a campaign to increase public awareness and action regarding the health needs of children and youth.

It has been said that you can't educate a child who isn't healthy and you can't keep a child healthy who isn't educated. I think that statement succinctly states the challenge before all of us who want to improve the health and educational status of our children. Clearly, poor health in all its dimensions adversely affects school performance. And, increasingly, the threats to the health of our children are not biomedical in origin. Injuries, homicide, suicide, pregnancy and substance use are experienced by American youth at alarming rates. These contemporary morbidities are primarily the result of social environment and behavior.

We *must* give greater priority to policies and programs that advance preventive health care practices. At issue is whether we want to invest now or pay later. We can invest in strategies that make a positive difference in our children's health and future, or we can continue to pay for costly intervention and treatment of preventable problems. I think the most promising strategy we can invest in is comprehensive school-based health education.

The chapters in this book cover a continuum of issues within today's school health education challenge: a review of the past, a vision of the future, the nuts and bolts of curriculum content and implementation, key concerns within health education research, and the growing need for partnerships. The chapters challenge us to use our scientific knowledge, professional skill, individual commitment, community support and political will to protect and improve the health of all school-age children through education. With a consensus of values and a collaboration of effort, it's a challenge I know we can meet.

M. Joycelyn Elders, MD

Preface

Comprehensive school health is a concept whose time has truly come. The major health risks children and youth face today can be reduced or minimized by effective prevention methods. Never before has this concept been so universally embraced. The Youth Risk Behavior Surveillance System (YRBSS) recently established by the U.S. Centers for Disease Control and Prevention (CDC) has provided strong evidence of the existence of these risk behaviors among our youth. We know that most of the health problems teenagers experience are caused by a relatively small number of behaviors, such as drinking and driving and sexual intercourse at a young age.

Every year, 1 million unintended pregnancies occur among teenagers in the United States. This group also experiences 2.5 million cases of sexually transmitted disease each year. In the United States, nearly 70 percent of all deaths in young people ages one through twenty-four result from the following four causes:

- motor vehicle crashes—33 percent
- other unintentional injuries—15 percent
- homicides—10 percent
- suicides—10 percent

Acute and chronic morbidity also result from these causes.

Sixty percent of all deaths among all age groups in the United States are due to heart disease and cancer. Tobacco use, consumption of excessive fat, and lack of physical activity play a major role in these diseases. These behaviors are frequently established during youth. With proper educational intervention, the health problems caused by these behaviors can be prevented or minimized.

In 1988, CDC began to monitor these risky behaviors through cooperative agreements with state education agencies. As the years go by, these periodic surveys provide us with data about how we are progressing in our efforts to change the behavior of our school-age children and youth.

Schools include many health-related components in their programs. For several years, many leaders in the school health education field have proposed that these elements should work in concert to improve the health of students, faculty and staff. Health education alone cannot do the job. We need coordinated efforts among those who manage or provide the following health-related components.

- health education
- school lunch programs
- guidance and counseling
- physical education
- school health services
- school health environment
- schoolsite health promotion program for faculty and staff

Those who provide these components must also work with individuals and groups in the community as well as parents. A coordinated effort is an essential aspect of a comprehensive school health program.

The first National Education Goal in *America 2000,* a report of the U.S. Department of Education, calls for every child in America to start school ready to learn. A quality school health program should be designed to help students maintain such a healthy start. In addition, a good comprehensive school health program can be a great help toward the nation's attainment of the goals delineated in the U.S. Public Health Service's document *Healthy People 2000.*

The authors of the chapters in *The Comprehensive School Health Challenge: Promoting Health Through Education* are all recognized leaders in the areas about which they write. The work is presented in two volumes and is designed to give you the impressions of leaders based upon their extensive experience. Volume One, the first eighteen chapters, addresses issues of goal-setting, coordination of programs, skill development and content guidelines. The fourteen chapters in Volume Two focus on research and evaluation, restructuring health education programs to meet "real life" education challenges, preparation of educators, and community linkages.

We hope this approach will be helpful to those planning to implement comprehensive school health programs, to those studying to be professionals in one of the component areas of a comprehensive school health program and to those wanting to improve their programs. Leaders developing policy related to school health programs can use this book as a tool for preparing advocacy speeches or documents. Community members and parents who want to learn more about what a health program can accomplish in a school can use this book as a guide.

All too frequently health programs are planned and implemented in a noncoordinated way. We hope this book will help convince you that a total comprehensive approach is the answer to a successful program—a program that will help to reduce illness, disease and infirmity among our citizens.

Acknowledgments

The efforts of numerous individuals in the development and production of this publication must be acknowledged. First, we would like to thank the contributors. Throughout this project, we had the great pleasure of working with dedicated and talented professionals. We are truly grateful for the time and energy given to this project by some of the busiest people we know.

We specifically want to acknowledge Dr. Wanda Jubb for her support of this project. She was involved in conceptualizing the framework of the book and the development of specific chapters.

Staff in ETR Associates' Editorial and Prepress departments deserve special acknowledgment. We feel fortunate to have had such capable people on the team for this project.

Finally, we wish to acknowledge Mary Nelson, publisher at ETR Associates. This project could not have happened without her leadership. She developed the prototype book in ETR Associates' "Challenge" series and continues to support the development of professional yet practical materials for health education.

Comprehensive Health Education for Tomorrow

School Health Education: What Are the Possibilities?

Marian V. Hamburg, EdD, CHES

Proponents of school health education are thoroughly familiar with the "ideal program." They can state its rationale, diagram its components, provide a model for its curriculum, describe its teaching methodologies and materials, identify the roles of personnel involved in its delivery and provide evaluation tools. Everything needed to put comprehensive school health education in place is available. That the ideal has never been fully achieved does not seem to dampen optimism that some day it will be. Its promoters are convinced of the theoretical soundness of its design and feel that its widespread adoption awaits only "the right time."

For years, the health education profession has led the promotion of an ideal health education program, in the hope that policy makers in the public and private sectors would recognize its value and take vigorous action toward its establishment. Throughout this time, school leaders have always agreed on the importance of education for health, but have been slow in effecting change in schools. Why?

Perhaps the time has not yet been just right. Public concern about health has not been high enough. The pressure exerted on schools by the health professions has not been sufficiently strengthened by parents and other voters. Or maybe it is simply resistance to change. The long tradition has been to focus on certain academic subjects such as reading, science and mathematics. These conditions, however, seem to be changing, and there may well be good reason for optimism that comprehensive school health education now has its golden opportunity.

The enormous health problems of young people can no longer be ignored. Today, for the first time in the history of our country, young people are less healthy and less prepared to take their places in society than were their parents (National Commission on the Role of the School and Community, 1990). They are at serious risk of being damaged by drugs, alcohol, poor nutrition, teen pregnancy, sexually transmitted disease, violence and injuries—problems that have their roots in behavior. Although it is true that children from poor families are at greater risk, adequate income and high social status provide no immunity to falling prey to dangerous practices that can lead to permanent damage or death. The situation in the United States has reached crisis proportions.

An alarm has been sounded by important groups. The Children's Defense Fund (1990) signals: "SOS America!...The mounting crisis of our children and families is a rebuke to everything America professes to be." Some staggering statistics are provided:

- Every 67 seconds an American teenager has a baby (472,623 in 1987).
- Every seven minutes, an American youth is arrested for a drug offense (76,986 a year).
- Every thirty minutes, an American youth is arrested for drunken driving (17,674 a year).

The Carnegie Corporation's Task Force on Education of Young Adolescents (1989) estimates that "seven million young people—one in four adolescents—are extremely vulnerable to multiple high risk behaviors and school failure, and another million may be at moderate risk, but remain a cause for serious concern."

A Code Blue alert, a call for extraordinary action in a life-threatening emergency, has been issued by the National Commission on the Role of the School and the Community in Improving Adolescent Health (1990). It calls upon the nation to collectively demonstrate the political will to respond to the serious health problems growing at a frightening pace among our young people. Specifically, "schools should offer students a new type of health education that provides honest, relevant information and teaches skills and strategies to make wise decisions and develop positive values."

The challenges that young people face in their growing years have not changed. But our society has. Today, children are faced with unprecedented choices and pressures and are surrounded by temptations of all kinds of high-risk behaviors, including use of tobacco, alcohol and other drugs, and sexual activity. They get conflicting messages from the adult world about most of these things. And many lack the support of a stable family where they can count on receiving love and guidance to help them make decisions that will increase their chances for healthful, fulfilling lives. Their world is far different than their parents' was. Their schools must be different too.

There is every indication that schools will change. Schools are also in a crisis situation, suffering pressures from a frustrated society to improve student performance. People are calling for schools to provide more with less: more choice, more services, more achievement and more graduates with less money, less parental involvement and less community support. A national reform movement is under way in education; the system is in for a major restructuring. In this climate, health education can scarcely be ignored. The stepchild of academic offerings may finally attain a new legitimacy in elementary and secondary schools.

Where Are We Today?

In spite of the fact that health education has never been a school priority, the link between learning and health has always been well understood by educators. They know that children who are sick, malnourished, or impaired by drugs, neglect or emotional problems cannot benefit fully from schooling. As children's health problems have become more severe and more prevalent and as school dropout rates have soared, there has been a growing acceptance of the necessity for schools to play a more prominent role in prevention. The home, even with the support of religious institutions and community agencies, cannot do the job alone, as was once believed.

Schools have been pushed to accept more significant responsibility for students' general well-being. Many have greatly expanded and improved their health education offerings by adopting a comprehensive approach—sequential broad-based teaching that progresses from kindergarten through high school. This is a radical change from the disconnected, piecemeal approach motivated by disease-of-the-month campaigns.

Today, well over half of all schools provide comprehensive school health education. In a recent national survey, 67 percent of the teachers questioned reported that their schools have comprehensive programs in place. Eighty-two percent of the school children reported that they had had health education as a separate school subject; 52 percent of these had health in more than two grades (Louis Harris and Associates, 1989).

Several factors are contributing to this development in comprehensive school health education. First, a philosophical statement that provides some basic guidelines has been put forward (A Point of View, 1992). School health education should:

- emphasize "broad-based constructive action in the shaping and reshaping of human lives for better health, rather than...the acquisition of knowledge about health"
- display a "broad curricular scope and methodological diversity, rather than...focus on narrow topical coverage or limited methodology"
- be "dynamic and evolving, not static and fixed"
- have flexibility for altering structure "as experiences and research point out improved ways to accomplish the goal"
- invite "participation in design and delivery from all actors in the school and community, including students, employees and citizens"

Second, current information about the major health problems of children is immediately available to help schools plan curricula and keep them up to date and relevant. In this age of technology, there are many sources of general and specific health information. One of the most widely used is *Healthy People 2000* (1991), a publication of the U.S. Public Health Service that provides a health profile of children and youth based on more than the usual morbidity and mortality data. Included are children's emotional, psychological and learning problems as well as the social and environmental risks to which these are related.

The *National Adolescent Student Health Survey* (ASHA, AAHE and SOPHE, 1989) sponsored by three national professional health education organizations is also an important information source for schools because it gives insights on what our nation's teenagers know and how they act concerning eight health topic areas: AIDS, injury prevention, violence, suicide, alcohol, drug and tobacco use, sexually transmitted disease, consumer health and nutrition.

Third, goal setting for health education has been made easier. The Health Objectives for the Nation (U.S. Department of Health and Human Services, 1990) provide a model for establishing goals and action plans for schools. School policy makers have taken good advantage of the pattern. The American Association of School Administrators presents its plan in *Healthy Kids for the Year 2000* (1990). The approach of the National School Boards Association can be found in its manual *School Health: Helping Children Learn* (1991).

Recently, the American Cancer Society used the national health objectives as the basis for an invitational workshop of national organization representatives to develop a collaborative plan to institutionalize comprehensive school health education for all school-age children (American Cancer Society, 1992). Reasonable, measurable goals for schools consistent with national objectives sharpen the focus of health education and greatly facilitate accountability.

Replicable models for comprehensive school health education programs have been identified. Metropolitan Life has led the way. Its "Healthy Me" program, designed to promote excellence in school health education by recognizing and rewarding exemplary programs, made more than 150 awards over a period of five years. A compendium of these winning programs has been widely distributed to spread the word about high-quality comprehensive health education as encouragement to schools throughout the nation to implement similar efforts. No school has to start from scratch.

Excellent curriculum guides and other teaching materials are now available. Most state education departments provide curriculum outlines, and there are many sources of free and inexpensive supplementary teaching materials. The past decade, however, has seen a great increase in school district adoption and purchase of fully developed curricula, several of which have been nationally validated. *Growing Healthy* and *Know Your Body* are two examples of widely used elementary school curricula that have an additional feature of teacher training. *Teenage Health Teaching Modules* are very popular with high school teachers. ETR Associates publishes the *Contemporary Health Series*, which includes *Actions for Health* for kindergarten through grade six, *Into Adolescence* for middle school students and *Entering Adulthood* for high school students. Teacher training is also available for the series.

In addition to such multitopic curricula, other teaching materials, such as *Here's Looking at You 2000*, address specific topic areas of concern such as alcohol and drug use, sex education or nutrition. School districts no longer have to create their own curricula or develop their own teaching aids unless they choose to do so.

Standards for teacher preparation have also improved. Several factors, all of them related to the professionalization of the field of health education, are responsible. The most basic was a study conducted to determine the role of generic health educators by defining their responsibilities and the competencies needed to carry them out. This Role Delineation Study (National Conference for Institutions Preparing Health Educators, 1981) provided the basis for a new Framework (National Task Force on the Preparation and Practice of Health Educators, 1985) for programs of professional preparation, which was promulgated to the 275 or more institutions offering health education specialization. The study also made it possible for national health education organizations to introduce an Approval Process for such baccalaureate programs (SOPHE/AAHE Joint Committee on Health Education Undergraduate Program Approval, 1985) and for the Association for the Advancement of Health Education to assist the National Commission for the Accreditation of Teacher Education in improving the standards for health education that are used in assessing institutions for accreditation.

Concurrently, a national competency-based credentialing process for individual health education practitioners, including teachers, was established. It is administered by the National Commission for Health Education Credentialing, which sets standards for attaining and maintaining certification. School districts can have more assurance than ever before that the teachers they employ are well prepared to provide the quality of leadership demanded for comprehensive school health programs.

There are new mechanisms to facilitate cooperation and coordination among the many groups and sectors involved in school health. National organizations have banded together to share resources, coordinate program efforts and provide single sources of multiple resources to schools. The National School Boards Association organized a National Consortium to Foster Comprehensive School Health Programs in the Public Schools. The National School Health Education Coalition promotes health in schools by providing strong leadership in advocacy. A newly formed Comprehensive School Health Education Network provides technical assistance and training through centers that now exist in every state in the union. Support from the Centers for Disease Control and Prevention has greatly assisted these activities.

In addition to the coalitions that support school health broadly, there are those that focus on a single topic area. A National Coalition to Support Sexuality Education helps schools deal with issues that may be controversial and also provides guidelines for curriculum development. National cooperative mechanisms have provided the model for numerous state and local coalitions, councils and committees to effect intersectoral cooperation that could not be easily achieved otherwise.

There is evidence that comprehensive school health education works. Some of the most compelling data come from an evaluation of comprehensive school health education in American public schools conducted by Louis Harris and Associates with the sponsorship of the Metropolitan Life Foundation (1989). A comparison between schools with comprehensive programs and a national cross-section of schools where health education is taught on a limited basis or not at all showed that students in schools with comprehensive programs have more knowledge and better health-related attitudes and behaviors than students with no exposure to health classes. In addition, the study revealed a linear trend of increase in health-related knowledge and behavior as the number of years of health classes increased for students in the national cross-section. Such data have helped to convince school policy makers that only continuous health education over several years influences health behavior patterns.

To sum up where we are today: Most schools do offer at least some health education, and more of them than ever before have comprehensive programs. All of the elements for continued momentum toward comprehensive school health education seem to be in place:

- an established need
- a heightened public awareness
- national health objectives
- a philosophical basis for health education
- program guidelines and replicable models
- high-quality curriculum materials
- prepared teachers
- tools for evaluation
- evidence that comprehensive school health education works

Where Could We Be in the Year 2000?

Imagine it is the year 2000. The results of a national survey on school health education have just been released. Here are some highlights.

Comprehensive School Health Education

- 70% of teachers report their school has comprehensive school health
- 90% of students have had health as a separate subject
- 57% of students have had health for more than two years
- 53% of parents report that they know what's being taught in health
- 31% of parents have become involved in their child's program in some way

Student Knowledge and Practice

HIV/AIDS—95% of junior high students know the facts about HIV and how to reduce their risk of getting it

Cigarette smoking—96% of high school students are non-smokers

Alcohol use—87% of high school students are non-drinkers

Drug use—92% of junior high and high school students report never using such drugs as marijuana, crack, speed or downers

Nutrition

- 93% of all students can identify less nutritional foods
- 16% of junior high and high school students think about the health consequences of the foods they choose
- 83% almost always eat breakfast

Safety

- 53% of high school students never drive after drinking
- 40% of junior high and high school students never ride with a driver who has been drinking
- 38% of all students regularly wear a safety belt
- 5% of student bicyclists regularly wear a helmet

A positive picture of school health in the year 2000? Yes! It may, in fact, be too optimistic, because each reported item shows a 10 percent improvement over a similar survey completed just over a decade earlier (Louis Harris and Associates, 1989).

Should we be satisfied with such improvement? Absolutely not! Only percentages much closer to 100 percent, with the implications for the health of the nation that accompany such scores, can bring any real pride of achievement.

After all, our imaginary year 2000 survey indicates that 13 percent of high school students drink regularly, 8 percent have used drugs and 4 percent smoke on a regular basis. An overwhelming majority (95 percent) do not wear bicycle helmets and 62 percent do not use safety belts. And even though knowledge about HIV/AIDS is at a high level (95 percent), there is no way of knowing whether that knowledge is being put into practice for reducing the risk of getting infected. If knowledge about nutrition and its effect on making food choices is any indicator, the gap between knowing and doing is probably wide.

Teaching to reinforce positive health practices and change negative ones has always been a great challenge for health educators. Knowledge, important as it is, does not necessarily lead to practice. Nor does all the teaching about health emanate from schools.

What Are the Obstacles?

With so much going for health education in schools, why aren't excellent programs more widespread? What are the obstacles? Three are critical.

The first is lack of support. Some school policy makers do not view health education as important. They give it much lower priority than other subjects, particularly language, math and science, and are satisfied with the outdated tradition of teaching health as a part of physical education. Resistance to comprehensive health education can be found at both state and local levels.

State education departments vary in their recommendations concerning the teaching of health, and there are few mandates. Where mandates do exist, they are more likely to address single topics only, such as HIV/AIDS, drugs, alcohol or smoking, which serves to reinforce the idea of a limited, fragmented curriculum.

Even when mandates call for comprehensive health education, they are ineffective if school boards and administrators are weak in their support of such programs. Local districts can and do meet the letter of the law without fulfilling its intent. Some of their reluctance to making change is undoubtedly due to practical problems such as where to find time in the curriculum, how to develop a curriculum, and where to find teachers within budget constraints. However, the strong support of comprehensive school health being given by the Council of Chief State School Officers, the National School Boards Association and the American Association of School Administrators is an indicator that this barrier is being lowered.

Lack of teacher training is the second major obstacle. Elementary classroom teachers lack adequate preparation in health education, yet are expected to teach the subject. Rarely does their preservice preparation program include more than one or two courses related to health. This means that they must depend upon the availability of inservice offerings if they are to gain the skill and knowledge that a modern approach to the teaching of health education requires. It is common for voluntary health agencies, local colleges and other community groups to sponsor inservice courses, but these opportunities cannot be counted on to reach all teachers with the depth or breadth needed to do the job well.

In recent years, the training offered in connection with school districts' adoptions of comprehensive curricula has alleviated this situation greatly. However, teacher preparation for health should not have to depend on a school district's purchase of curriculum materials. Until teacher education programs are modified to provide better preservice preparation, we cannot expect the quality of elementary health education to improve.

There is no lack of professionally prepared health educators for teaching positions in secondary schools, but there is sometimes a problem with the quality of teaching at this level. This problem results from the practice of assigning specialists in other subjects to teach health. A myth believed by some school administrators is that "anyone can teach health." The inevitable result when "anyone" is assigned to do so is pedestrian teaching, disinterested students and poor results.

The third obstacle is that no one is in charge. Comprehensive health education differs from other school subjects because it is interdisciplinary in nature and must be linked not only to other subjects in the curriculum but also to the community in which it exists. Parents need to be encouraged to participate in their children's program because of the home's significant influence on health attitudes and practices. Students need to gain an understanding of health in its larger social context by being exposed to local, state, national and even international concerns. Many excellent resources are to be found in the public, private and professional organizations of the community. Schools need to reach out; communities need to contribute. Working together can provide the dynamic, relevant curricula envisioned for comprehensive health education programs. Such collaboration requires leadership beyond the classroom. Someone needs to be in charge. Often no one is.

Designating or employing a health coordinator is recommended by some state education departments and used successfully by some school districts. The job often includes leadership of a school/community council or advisory committee. The spread of such appointments has been slow, primarily for economic reasons. In times of tight school budgets, it is hard to justify support of a school health coordinator. New ways of dealing with the need for intersectoral collaboration must be found.

What Are the Possibilities?

Can these barriers to progress be overcome? What are some realistic possibilities for school health programs of the future?

The National Association of State Boards of Education has put forward the view that the current education reform movement provides an extraordinary opportunity for gaining wider acceptance of school health education. The potential for success, however, is greatly dependent on the extent to which those concerned with school health take leadership in working with education reformers in the development of new strategies for integrating health into education. Health education professionals need to join the movement, not remain separate from it. Successful advocacy for school health education requires flexibility, not rigidity; open mindedness, not being closed to new ideas; and the skillful use of cooperation and collaboration.

Policy makers can be expected to become more supportive of school health education when they are convinced that health outcomes belong in the goals for education and when they can envision reasonable ways to achieve them. Teacher training institutions can be expected to find new ways to strengthen the preparation of elementary school teachers when they become familiar with current innovative health education curricula that can be used to develop teacher competencies which can be generalized to other subject areas.

School administrators who have opportunities to experience the excitement that comes from opening school doors to community people who can relate health teaching to real situations can be expected to actively seek ways to make new and better things happen in their schools.

Those who form the architectural teams for the basic remodeling of our schools will determine the new infrastructure. This time it won't be just patchwork or add-ons. The new look will be more than cosmetic change. Will the planners include health education proponents? If so, the possibilities for comprehensive school health education to be built into the very foundations of education, where it belongs, have never been better.

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Curricula Resources

Contemporary Health Series. A comprehensive health education program for grades K-12, with three components: *Actions for Health* for grades K-6; *Into Adolescence* for grades 5-8; and *Entering Adulthood* for grades 9-12. ETR Associates, P.O. Box 1830, Santa Cruz, California 95061-1830.

Growing Healthy. A comprehensive health education program for grades K-6. National Center for Health Education, 72 Spring Street, New York, New York 10012.

Here's Looking at You, 2000. A K-12 curriculum for drug education. Comprehensive Health Education Foundation, 22323 Pacific Highway S., Seattle, Washington 98198.

Know Your Body. A comprehensive elementary school health education program. American Health Foundation, 320 East 43rd Street, New York, New York 10017.

Teenage Health Teaching Modules. A comprehensive health education curriculum for grades 7–12. Education Development Center, Inc., 55 Chapel Street, Newton, Massachusetts 02160.

Resources

Comprehensive School Health Education Network. Education Development Center, Inc., 55 Chapel Street, Newton, Massachusetts 02160.

National Coalition to Support Sexuality Education. Sex Information and Education Council of the United States, 130 West 42nd Street, New York, New York 10036.

National Commission for Health Education Credentialing, Inc., 475 Riverside Drive, New York, New York 10115.

National Consortium to Foster Comprehensive School Health Programs in the Public Schools. National School Boards Association, 1680 Duke Street, Alexandria, Virginia 22314.

National School Health Education Coalition, 100 Vermont Avenue NW, Washington, D.C. 20005.

Chapter 2

School Health Education Today: Highlights and Milestones

Ann E. Nolte, PhD, CHES

Many forces and factors influence health education in the public schools today. These include the preparation of teachers, local and national health problems, school finances, controversy regarding health education in general and specific topics in the curriculum, and values and religious beliefs of various communities.

Today, more and more educators recognize that for health education to be effective, it needs to be initiated at the elementary level. Health behavior is based not only in knowledge but in values and attitudes, and the foundation for these develop at the elementary ages. If health education is to begin at the elementary level, however, changes need to occur in several areas. First, there has to be a demand for it. Demand can come from professional organizations, parents, school administrators, state departments of education and state legislatures. Second, the preparation of elementary teachers needs to change.

At the secondary level, changes have already occurred in professional certification requirements. More health education teachers are being prepared to teach health education specifically, as opposed to dual preparation. However, there is also a growing need for continuing education in health education. The rapid expansion of knowledge and technology are increasing the need for inservice for teachers to remain competent professionals. (See Chapter 30 for a discussion of credentialing and certification.)

The health profiles of the nation and the individual community influence health education—not only the health topics taught in the classroom but also the techniques, resources and materials used. The financial base for schools also affects the quality of a health education program. Adequate funding will mean qualified teachers; up-to-date library and audiovisual materials, texts and curriculum materials; and funding for field trips. The financial base for programs often depends upon administrators having adequate knowledge about programs. Administrators must be kept informed of the progress and needs of the program.

Two other influencing factors are very much interrelated—the values of the community and potential areas of controversy springing from these values. Several actions can help control these factors, including:

- getting to know the community through its residents
- developing a profile of the community and using it as you interact with the population
- understanding the religious background of the community

Certain areas of the health curriculum touch upon very sensitive issues. As the curriculum is developed for the school year, health educators must keep families informed about topics and activities in the classroom and encourage techniques for involving families in the lessons.

The factors mentioned here influence the success of a health education program today. All of these influencing factors are interrelated and require new responses as they change. With thoughtful study and communication, however, they can be approached in ways that will have a positive influence and further the goals of the program.

Highlights of the Past

The early history of the United States reflects a situation similar to what we face today. The country was attempting to establish a system of government that would provide a direction toward the future. Challenges included numerous immigrants and many health problems. Regulations and laws were established; schools were constructed; churches were built. A system of order was developed.

Disease and health problems took their toll as the new settlers attempted to carve out an existence in this country. Poor sanitation was thought to be the cause of health problems, so sanitary commissions were established in larger communities. Physicians and others trained in these areas attempted to ferret out causes of epidemics and identify methods of controlling or preventing them. Some communities prohibited spitting in the street.

In 1850, Lemuel Shattuck wrote a *Report of the Sanitary Commission of Massachusetts.* The report stated that "it has recently been recommended that the science of physiology be taught in the public schools; and the recommendation should be universally approved and carried into effect as soon as persons can be found capable of teaching it." This was one of the first recommendations in the United States for teaching about health (i.e., physiology, hygiene).

The temperance movement that occurred during the 1800s also influenced the teaching of health in the public schools. The American Society for the Promotion of Temperance had more than one million members. In 1874 the Women's Christian Temperance Union (WCTU) was organized. The WCTU was very influential in getting information about the effects of alcohol, tobacco and narcotics into textbooks. Physiology books used in the public schools often included a statement indicating that the book had been approved by the WCTU because it had a section on the evils of alcohol, tobacco and narcotics. This crusade resulted in the passage of legislation in 1890 requiring the teaching of physiology and hygiene in 38 states.

Along with the WCTU, other organizations related to health developed, including the American Medical Association, the American Public Health Association and the American Association for the Advancement of Physical Education. They all had a concern for and vested interest in health. The journal of the American Association for the Advancement of Physical Education frequently had articles on the teaching of hygiene.

At the turn of the century, many voluntary health organizations originated. The National Tuberculosis Association (now the American Lung Association) promoted open-air schools and developed materials for classroom teachers. Other health organizations that arose at this time were the American Cancer Society, the Society for Mental Hygiene and the National Safety Council.

One of the most significant organizations for health education to develop during this time was the Joint Committee on Health Problems in Education of the National Education Association (NEA) and the American Medical Association (AMA). This committee existed from 1911 until 1975. The Joint Committee was initiated by leaders of the AMA, who talked with some leaders of the NEA. The AMA leaders were concerned about the health subject matter being taught in schools; the NEA was concerned about the physical health status of school children. The Joint Committee was chaired by Thomas Wood, MD, a professor at Columbia University. Under Dr. Wood's leadership, the Joint Committee moved toward the development of a focus on health instruction, health services and healthful environment. Materials were developed expressing the viewpoints of both medicine and education on rural schools, health examinations and sanitation in the schools. These materials were widely distributed.

In 1924, the Joint Committee published its first book. *Health Education: A Program for Public Schools and Teacher Training Institutions* detailed the following concerns:

- the aims of health education
- the problems of health in the United States
- what the schools could do
- the subject matter for the teacher
- educational problems
- suggestions for courses of study in health education (inclusive of K-12)
- measurement of results
- training of teachers

This comprehensive document set the standard for the future. It was revised periodically over the years to update the substance. The Joint Committee also developed recommendations regarding health instruction, health problems of school children, environmental conditions in schools, and physical education activities. The committee kept a watchful eye on the education of children and made recommendations to significant people when necessary.

At the time of the Second World War, the same conditions existed as were apparent at the beginning of the First World War. Recruits and enlistees were not in good physical condition, and the finger of blame was pointed at the schools. As a result, health and physical education were again targeted for emphasis. Health and physical education were taught by a teacher prepared in both subjects, and the time allotted for teaching was limited in both areas. Health education was often taught only on days when the physical education classes could not be outside for activity.

This method of organizing for health instruction continued through the 1940s and into the 1950s. In the fifties, there was a surge in the field of science. Russia had launched a rocket, and the United States was fearful of being in second place. Blame was again directed at the schools. Students were not being prepared in the sciences and, therefore, the United States did not have trained scientists able to keep pace with the Russians. This concern launched a movement of curriculum reform in the schools.

Interestingly enough, the Joint Committee was still in existence and meeting regularly. Toward the end of the fifties, a recommendation was made to evaluate nationally what was occurring in health education, with the expectation that the results might demonstrate a need for curriculum reform.

Milestones in School Health Education

School health education has existed to some degree in the public schools of the United States since the mid-1800s. Each decade has fostered activities that focus on the relationship of education and health. Most of these activities have been crisis oriented and have not generated a quality of change that is effective over time. The early years of health education reflected the belief that knowledge about the "evils" would change actions and promote health. Since that time, research has indicated that cognitive skills are only part of changing behavior.

The following activities, with one exception, have occurred since 1960. They have been organized with a focus on long-term change and have involved leaders in health, education, government, and social, professional and voluntary agencies. The activities attempt to target specific audiences. These audiences are then cultivated and encouraged to bring about change in public schools for improved health education. Each activity or organization illustrates a structure and an action focused on change. School health education in the year 2000 will illustrate the effectiveness of these activities and organizations.

Health Education Terminology

Terminology in health education has evolved over the past 58 years through the efforts of the Association for the Advancement of Health Education. The rationale for defining terminology was to enable members of the profession of health education to communicate more effectively. Five different committees met during this period to consider terminology unique to health education. Reports of these committees were published in 1934, 1951, 1963, 1973 and 1991. Figure 1 summarizes the terms defined by each committee.

Each committee established its own procedures for arriving at final definitions. The 1934 committee prepared a list of common terms with definitions, then circulated them to people in the profession for their comments and suggestions. The committee developed definitions for ten terms (Committee Report of the Health Education Section of the APEA, 1934).

The 1951 committee limited terminology definitions to terms commonly used in school health (Committee on Terminology in School Health, 1951). Definitions were developed for these terms and submitted to a representative group of school health educators for their comments. These comments were then utilized in refining the terms.

The scope of terminology in 1963 was broadened to include public health education and related terms in order to foster and improve understanding on the part of both school and public health educators (Committee on Terminology in School Health, 1963). This was accomplished by including representatives from organizations representing public health. After consideration of more than 150 terms, the 1963 committee developed definitions for 23 of them.

In 1973, the Committee on Health Education Terminology identified health education terms and agreed on the most common terms used by school and community health educators. After the terms were selected and definitions developed, the terms were reviewed by corresponding members and selected reviewers. Following the review, the terms were revised and refined into a final report.

The most recent compilation of terminology was published in 1991 (Report of the 1990 Joint Committee on Health Education Terminology, 1991). Committee members consisted of the delegates from the Coalition of National Health Education Organizations, a coalition of all of the professional associations with a direct concern for health education, plus a representative of the American Academy of Pediatrics.

A draft document was developed and circulated to a select number of outside reviewers for comment. The final report of terminology was organized around four categories: contextual definitions, primary health education definitions, definitions related to community settings, and definitions related to educational settings. (See Appendix B for the full text of the report.)

Health education terminology has evolved with the profession, and a study of the terms reveals not only the specific definitions but also the changing context of the profession. Each committee has expanded participation of organizations in the process, and the terminology has moved from a primary focus on school health to a much broader view of health education.

Figure 1

Health Education Terminology

1934

- health education
- school health education
- public health education
- hygiene
- sanitation
- health
- health instruction
- health service
- healthful school living
- health examination

1951

- school health program
- school health services
- health appraisal
- school health counseling
- school health education
- healthful school living
- health coordination
- school health council
- school health educator

1963

- dental examination
- dental inspection
- health appraisal
- health observation
- medical examination
- screening test
- cumulative school health record
- school health educator
- school health program
- healthful school living
- healthful school environment
- health science instruction
- school health services
- school health coordination
- school health nurse
- public health educator
- school medical advisor
- private health agency
- public health agency
- professional health agency
- school health education
- safety education
- health counseling

1973

- health education
- health science instruction
- community health education
- mass communications (in health)
- community organization (for health)
- patient education
- consumer participation (in health planning)

(continued)

Figure 1 (continued)

1973 (continued)

- private health agency
- public health agency
- group process (in health education)
- public (community) health educator
- health education of the public
- school health education
- health education program
- school health education curriculum guides
- health education resources
- school health education curriculum
- health environment
- health information
- school health educator
- health instruction
- school health program
- health science
- school health services
- health science educator
- voluntary health agency

1991

Contextual Definitions

- health
- health promotion and disease prevention
- healthy lifestyle
- official health agency
- voluntary health organization
- private health agency

Primary Health Education Definitions

- health education field
- health education process
- health education program
- health educator
- Certified Health Education Specialist (CHES)
- health education coordinator
- health education administrator
- health information
- health literacy
- health advising

Definitions Related to Community Settings

- community health education
- community health educator

Definitions Related to Educational Settings

- comprehensive school health program
- school health education
- school health services
- school health educator
- comprehensive school health instruction
- post-secondary health education program

School Health Education Study

The School Health Education Study (SHES) began in September 1961 with a grant from the Samuel Bronfman Foundation of New York City. The impetus for the study came from the efforts of Granville Larimore, MD, first deputy commissioner of the State Department of Health of New York; Herman Hilliboe, MD, professor and head of public health practice, Columbia University; and three educators working in school and college health education. This task force developed a proposal and presented it to the foundation.

As a result of the funding, Dr. Elena M. Sliepcevich was selected as the director of the study. Support from the foundation continued through the first year and was extended through 1965. The 3M Company provided financial support from 1966 until the conclusion of the project. An advisory committee was established. A larger committee of 16 individuals representing public health, medicine, school and college health education, and educational administration was then identified to offer expert guidance for the project's development.

From its inception to its conclusion in 1973, the School Health Education Study accomplished four major tasks:

1. The development of the book *Synthesis of Research in Selected Areas of Health Instruction* (1963), a summary of studies conducted from 1920 to 1963 in 14 areas related to health instruction.
2. A nationwide study of instructional practices in health education in public schools and a study of health behavior (knowledge, attitudes and practices) of students (elementary and secondary). This study is reported in *School Health Education Study: A Summary Report* (1964).
3. The selection of a writing group of eight people to develop and refine the philosophy of the conceptual approach to health

education, the development and testing of experimental curriculum materials in two areas, and the publication of *Health Education: A Conceptual Approach to Curriculum Design* (1967).
4. The writing and publication of curriculum materials not previously developed.

SHES was recognized as one of the leading curriculum projects in education. It included all of the processes deemed appropriate for curriculum development. SHES was one of many curricula developed during the education curriculum reform movement that began in 1956. The results of this study can still be observed in school health education today—in support for health education in kindergarten through grade 12; in support for a comprehensive, sequential curriculum; and in a focus on attitudes and practices as well as knowledge.

President's Committee on Health Education

President Richard Nixon's health message to Congress in February 1971 indicated that an individual has the major responsibility for her or his health, but little attention had been given to the health education of people. "There is no national instrument, no central force to stimulate and coordinate a comprehensive health education program," Nixon said. Nixon then established a Committee on Health Education in September 1971. Nineteen people, representing a variety of businesses and public interests, were selected for the committee. The charge to the committee was as follows (Department of Health, Education and Welfare, 1972):

- Describe the "state of the art" in health education of the public in the United States today.
- Define the nation's need for health education programs, and their basic characteristics, in terms of major groupings of health consumers.

- Establish goals, priorities, and immediate and long range objectives of a comprehensive, nationwide effort to raise the level of "health consumer citizenship."
- Propose the most appropriate scope, function, structure, organization, and financing of such an effort, possibly in the form of a "National Health Education Foundation."
- Develop a plan for the implementation of its recommendations.

A staff, staff assistants, staff council and consultants facilitated the numerous activities of the committee. The committee held eight public hearings in major cities, at which many hours of testimony were taken. Forty-seven states and Puerto Rico were represented in the testimony. Directors of 22 neighborhood health centers talked with the committee. Producers of health education materials and programs shared their successes and failures with materials. Papers were commissioned on such topics as motivation and behavior, school health, health education programs in hospitals, and cost effectiveness of health education programs in industry.

Many other data-gathering activities were conducted over a period of a year and a half to respond to the five goals. A report released in 1972 contained findings and recommendations. The findings were reported in the following areas:

- health problems and health education
- age groups and health education
- the health care delivery system and health education
- schools and colleges and health education
- employment and health education
- health education services
- leadership for health education

Significant to school health education were the recommendations that:

- Health education be explored for preschool children.
- Model state laws for school health education be developed and adopted.
- Feasibility of matching state funds with federal funds be explored to support school health education.
- Periodic surveys to determine health education needs and interests be administered to children and youth preschool through college.
- The Department of Health, Education and Welfare (now Health and Human Services) and/or its Office of Education initiate research and evaluation in school health education.

Another major recommendation was to establish a National Center for Health Education in the private sector of society. This recommendation was described in detail and, as a result, the National Center was established in 1975. Also as a result of a committee recommendation, the federal government provided a focus on school health education in the Office of Disease Prevention and Health Promotion in 1974. This then provided action in the public sector of society.

Coalition of National Health Education Organizations

The Coalition of National Health Education Organizations was formally established in 1972. Currently, this coalition consists of representation from the following organizations:

- Association for the Advancement of Health Education (AAHE)
- American College Health Association
- American Public Health Association, through its Public Health Education and School Health Education and Services sections
- American School Health Association

- Conference of State and Territorial Directors of Public Health Education
- Society for Public Health Education
- Society of State Directors of Health, Physical Education and Recreation

Feasibility studies for the coalition were initiated by the School Health Section (currently AAHE) of the American Association for Health, Physical Education and Recreation (currently AAHPERD) in 1971. After three meetings to explore a rationale and establish an agreement to provide structure and function, all of the organizations signed a working agreement.

The focus of the coalition is to mobilize resources of the health education profession to expand and improve health education in the United States (Cauffman, 1982). The five purposes are as follows:

1. Facilitate national-level coordination, collaboration and communication among the member organizations.
2. Provide a forum for the identification and discussion of health education issues.
3. Formulate recommendations and take appropriate action on issues affecting the member interests.
4. Serve as a communication and advisory resource for agencies, organizations and persons in the public and private sectors concerning health education issues.
5. Serve as a focus for the collaborative exploration and resolution of issues pertinent to professional health educators.

The coalition is in its twenty-first year of existence and has functioned extensively within the five purposes. Meetings have focused on federal legislation in health education, credentialing mechanisms for health education, and the development of position statements on critical issues, such as the need for health instruction in the elementary school and the need to establish health education as a basic subject in school. The coalition has been a forum for the profession and, through its collective strength, has made a difference in the arena of health education.

National Commission for Health Education Credentialing

Activities leading to the establishment of the National Commission for Health Education Credentialing in 1988 began in 1978. Representatives included:

- Health Education Section of the American College Health Association
- Public Health Education and School Health Education and Services sections of the American Public Health Association
- American School Health Association
- Association for the Advancement of Health Education
- Society for Public Health Education
- Society of State Directors of Health, Physical Education and Recreation
- State and Territorial Directors of Public Health Education

These representatives organized a conference of health educators from a variety of practice settings. The two purposes of the conference were to analyze the commonalities and differences that existed in the preparation of health educators for different practice settings and to determine the potential for developing acceptable guidelines for professional preparation that would include all practice settings of health educators. The conference, entitled "Preparation and Practice of Community, Patient, and School Health Educators," was sponsored by the Bureau of Health Professions of the Health Resources Administration of the Department of Health, Education and Welfare (now the Health Resources and Services Administration of the Department of Health and Human Services).

The National Task Force on the Preparation and Practice of Health Educators was formed at this conference. The task force was instructed by a consensus of the participants to pursue the development of a credentialing system for the health education profession. A five-step process was developed to provide direction for the accomplishment of the task. The process was to

1. delineate the role
2. verify and refine the role
3. prepare an educational resource document for professional preparation programs
4. develop a self-assessment instrument for practitioners
5. prepare materials and develop programs to ensure continuing competencies through continuing education

This process took nine years to develop. Very careful and extensive procedures were used to establish the framework of responsibilities and competencies that define the practice of health education and to establish criteria for certification. Professionals from throughout the United States and all settings of health education practice were employed in the process. Involvement of practitioners was important to achieve acceptance by the profession.

In 1988, the National Task Force moved to a more permanent status by incorporating and becoming the National Commission for Health Education Credentialing, a nonprofit agency supported by fees for service. The commission consists of nine commissioners who establish policy and three division boards to implement the three major purposes:

1. development and administration of a national competency-based examination
2. development and promulgation of standards of professional education
3. professional development through continuing education programs

Each division board is composed of seven members, all of whom are Certified Health Education Specialists (CHES), as are the members of the board of commissioners. The CHES designation assures employers and consumers that these educators have met national standards as health education professionals and are expanding their skills and knowledge through continuing education.

During an initial time period (October 1988 through April 1989), health educators could submit their professional credentials for evaluation according to specific criteria. If these criteria were fulfilled, the health educator became charter certified. The certification examination was initiated in 1990, and the current requirements for becoming certified include:

- completion of a professional program of study in the field of health education at the bachelor's degree level or above
- passing the certification examination

This activity of the National Commission for Health Education Credentialing helps strengthen health education as an established profession.

Michigan Model for Comprehensive School Health Education

The Michigan Model for Comprehensive School Health Education illustrates the process of combining the efforts of several state agencies to achieve comprehensive health education. The state has instituted a health education curriculum consisting of ten topics addressed at each grade level. The curriculum was created through the efforts of the departments of education, health, social services and mental health and the offices of substance abuse services, health and medical affairs, and highway safety planning. It allows for sequencing of topics and age-appropriate materials.

The Michigan Model, as it is known, was officially begun in 1984; however, much background work preceded that time (Association for the Advancement of Health Education and the American College of Preventive Medicine, 1985). Cooperative efforts of the state health and education departments initiated the actions. Involvement of many people, many agencies and the state legislature finally gave birth to the idea. From that point, curriculum materials were developed, teacher inservice was organized and classroom materials and evaluation procedures were developed.

Implementation has been gradual, starting with lower elementary grades and moving to upper level grades as materials have been developed. Evaluation of materials, students and teachers has provided information for refining materials and techniques.

The Michigan Model has been carefully planned, and implementation strategies have been characterized by the use of leaders at the local level. Even with excellent planning, however, problems arise. The planners and implementers of the Michigan Model have had to address the kind of controversy that surrounds health education information on human sexuality, substance use and values, to name a few. Other problems have included funding through the state legislature. These problems can be planned for and approached in numerous ways, and the Michigan Model is exemplary.

Seaside Health Education Conference

The Seaside Health Education Conference, which was initiated in 1977 in Seaside, Oregon, was the result of a needs assessment conducted by the health education specialist of the Oregon Department of Education, Len Tritsch. The assessment indicated that health educators in Oregon needed skills to become change agents within their communities if health education was to prosper.

The first Seaside Conference theme was "Health Education at the Crossroads." There were 152 people registered. One of the goals was to create a health education network throughout the state. Other goals included:

- Assess the effectiveness of health education in Oregon schools.
- Share successful health education techniques with others.
- Analyze personal practices of daily eating, drinking and exercise.
- Participate in experiences that enhance positive feelings about the participants themselves and their profession.

This conference led to annual conferences in Oregon and ultimately to conferences of a similar nature in 25 states. Two factors have contributed to the success of these conferences. The first has been the requirement of team participation. Districts send administrators, teachers, staff and community members to attend the conferences together. The second has been the requirement that the team attend the entire conference. Team meetings are scheduled, and objectives of the teams are developed and achieved. In effect, success is built into the conference structure.

Many people and agencies have been involved in the fifteen years of these conferences. Those concerned with school health education have set up displays with materials appropriate to conference themes. The name of the conference was changed to Seaside Health Promotion Conference when organizers realized that the themes and activities were promoting wellness as a lifestyle. The conference director, Len Tritsch, estimated that the lives of 99 percent of Oregon school children had been touched in some way by the action plans developed by the teams in the first five years of the conference.

Recognizing the success of the conferences, the Office of Disease Prevention and Health Promotion (Department of Health and Human Services) and the U.S. Department of Transportation provided funding for out-of-state teams to attend. These teams were obligated to return to their states and attempt to provide a similar experience in health promotion. As a result of the funding, 25 states sent teams.

At this point, a National Network of School Conferences on School Worksite Wellness was established. The network attempts to maintain communication among the states and their expanding programs. Many of the programs have moved into small business health promotion. With strong leadership in a state, the potential for implementing health promotion activities at the grass roots level is unlimited.

State School Health Education Project

The Education Commission of the States (ECS) received a grant from the American Council of Life Insurance and the Health Insurance Association of America to develop a document on the health education of young people that would be a resource for the education and health professions.

ECS convened a meeting of representatives from the following agencies:

- state boards of education
- chief state school officers
- state legislators
- local school administrators

- U.S. Department of Education
- U.S. Department of Health and Human Services
- American School Health Association
- Association for the Advancement of Health Education
- American Public Health Association (School Health Education and Services Section)
- National Center for Health Education

This State School Health Education Task Force met several times with Mary Noak, project director, to study school health education and to develop a policy statement exemplifying state-level commitment to health education. The following ten recommendations were made (Noak, 1982):

1. State education agencies should encourage local school boards and administrators to include health education in the curriculum in elementary and secondary schools.
2. State education agencies should promote health education as a responsibility shared by the family, school and community.
3. State education policymakers should support the development and improvement of school health education programs by utilizing the direct and indirect means available to them in their official capacity.
4. State education agencies should provide technical assistance to local districts in planning and implementing school health education programs.
5. State education agencies should promote the development of comprehensive school health education programs.
6. State education agencies should encourage local school boards to undertake a participatory planning process in the development of school health education programs.
7. State and local education agencies should ensure the presence of trained and qualified teachers in school health education programs.

8. State and local education agencies should assist in developing a system of information exchange about health education.
9. State education agencies should encourage the evaluation of school health education programs and assist local districts in developing appropriate evaluation processes.
10. State education agencies should encourage federal agencies to channel categorical funds in a manner that will enhance comprehensive school health education program development.

These policy recommendations were expanded to include important considerations. The following statements and sections were included in the culminating publication, *Recommendations for School Health Education: A Handbook for State Policymakers* (1981):

- suggested policy statement on school health education for state boards of education
- the importance of school health education
- the current status of school health education
- problems in program development and implementation
- description of recommended content areas in comprehensive school health education

This document was distributed to governors, state legislators and educators for the improvement of school health education in their states.

The work of the project provides an excellent example of ways organizations and agencies outside of school health education can be supportive of a positive direction to strengthen the educational process and influence society. ECS, a nonprofit organization, has been in existence since 1966 and has influence on education within the states.

National Health Promotion and Disease Prevention Objectives

Soon after assuming office in 1977 as the Secretary of the Department of Health, Education and Welfare (now Health and Human Services), Joseph A. Califano, Jr., asked the Surgeon General to begin work on the first Surgeon General's Report on Health Promotion and Disease Prevention. The report was to emphasize the prevention of disease. "Its purpose," Califano stated, "is to encourage a second public health revolution in the history of the United States" (Public Health Service, 1979). (The first revolution was the struggle against infectious diseases.)

The document *Healthy People: The Surgeon General's Report on Health Promotion and Disease Prevention* was published in 1979. It is a landmark in the history of public health in the United States. The document focused on a healthier America. Risks to good health were examined and analyzed. Health goals to be achieved by 1990 were established for infants, children, adolescents and young adults, adults and older adults. The document identified actions for achieving the goals for these age groups through preventive health services, health protection and health promotion. The intention was to monitor the achievement of these goals nationally during the time period to 1990.

Some health agencies and organizations at the national, state and local levels began to assume responsibility for achieving these goals. The leadership of these groups attempted to integrate the national goals into the goals of their organizations. Progress was slow, not only in moving toward the goals but also in implementing activities targeted to the goals. The major objectives were to lower the death rate for four of the five age groups and to reduce the days of restricted activity for older adults. When the data were examined in 1987, three years before 1990, it was encouraging to see the progress. (Data for 1990 were not available at the time of this writing.)

Work on *Healthy People 2000: National Health Promotion and Disease Prevention Objectives* was initiated in 1987. The Healthy People Consortium consists of 271 national organizations and 54 state and territorial health departments. Testimony obtained from public hearings across the country served as resource material for the development of the health objectives. Once developed, the objectives were reviewed and commented on by more than ten thousand people. The objectives were then refined and revised to produce the final report.

This document reexamined the major health problems of the five age groups from the 1979 report and special populations (people with low income, minority groups and people with disabilities). The three major goals for the year 2000 were identified:

1. Increase the span of healthy life for Americans.
2. Reduce health disparities among Americans.
3. Achieve access to preventive services for all Americans.

These goals are to be achieved through health promotion, health protection and preventive services. Within each area, specific objectives are identified for action. Health promotion objectives deal with the following areas:

- physical activity and fitness
- nutrition
- tobacco
- alcohol and other drugs
- family planning
- mental health and mental disorders
- violent and abusive behavior
- educational and community-based programs

Health protection objectives fall within the following areas:
- unintentional injuries
- occupational safety and health
- environmental health
- food and drug safety
- oral health

Preventive services objectives deal with the following areas:
- maternal and infant health
- heart disease and stroke
- cancer
- diabetes and chronic disabling conditions
- HIV infection
- sexually transmitted diseases
- immunization and infectious diseases
- clinical preventive services

Health education program planners can find many objectives that will be relevant to their work setting in these three areas. Many objectives can be implemented through K-12 school curricula. The National Health Promotion and Disease Prevention Objectives can be achieved at the grass-roots level. Through shared responsibilities at the community level, the year 2000 will see a healthier population in the United States.

National School Health Education Coalition

The National School Health Education Coalition (NaSHEC) represents more than fifty national organizations with an interest in promoting quality and comprehensive school health education. Established in 1982, its goals include:
- cooperation and information sharing among member organizations

- supporting the establishment of state and local coalitions
- developing resource materials to support school health education
- acting as advocates for comprehensive school-based health education

NaSHEC includes organizations such as federal agencies, voluntary organizations, professional organizations and business agencies. The representatives meet regularly in Washington, D.C. The coalition provides an effective way of targeting issues in school health education and channeling the interests, materials and energies of the organizations toward support of comprehensive school health education.

The national organizations represented in NaSHEC have their counterparts in state and local settings. Thus, actions taken at the national level can reach the grass-roots level quickly if there is cooperation at this level. Coalition building at the state and local level is critical to comprehensive school health education.

NaSHEC also monitors legislation in Congress relevant to school health education. Newsletters with this information are circulated periodically, so if action is needed in the way of letters or phone calls to support or act against pending legislation, it can be accomplished quickly.

Met Life's Healthy Me Program

In 1985, Met Life launched a new national initiative designed to promote comprehensive school health education programs. Healthy Me, which took place over a five-year period from 1985 through 1989, was the latest in Met Life's long history of underwriting projects focused on helping children and youth make wise decisions about health. Committed to accomplishing this through schools to a large degree, Met Life discovered in a 1985 survey that only about one-third of the nation's public school children received comprehensive health instruction. The survey demonstrated a clear need to teach about health in ways that make a difference. Healthy Me sought to do this through identifying and rewarding exemplary programs that could serve as models for others.

This $5 million initiative was administered by the Health and Safety Education Division of Met Life and funded by the Metropolitan Life Foundation. Award recipients were chosen by a panel of ten health and education professionals around the country. In addition to the awards given to schools with outstanding comprehensive health education programs, funds were provided for community coalitions that actively promoted such programs, for classroom teachers who wanted to improve their health education skills, for wellness programs for teachers and other school personnel, and for information programs designed to raise awareness of effective school health education.

Awards to schools were the centerpiece of the initiative. One hundred fifty schools received Healthy Me awards of $5,000 for multitopic, multigrade programs, or $3,000 for multitopic programs designed for a single grade or special population. Schools that successfully incorporated HIV/AIDS education into their comprehensive program received an additional $2,000. A compendium of award-winning programs has been published (Metropolitan Life Foundation, 1990).

At the end of the five-year period, a three-part survey of public school students, teachers and parents of children attending public schools was designed and conducted by Louis Harris and Associates. The survey was designed to determine the knowledge, attitudes and behavior of school children on a range of topics, as well as teachers' and parents' perceptions of children's levels of knowledge. It covered specific areas regarding how much children know about nutrition, safety, health maintenance, smoking, substance abuse and HIV/AIDS; the state of their emotional health; and the extent of their physical exercise. The survey also was designed in part to assess the impact of comprehensive programs on the nation's school children. For that purpose, it included some of the Healthy Me award-winning schools. The results describe the current state of the nation's school health education, identifying where it is successful and where it falls short. The survey results also provide evidence that comprehensive programs are an effective approach. Complete results are contained in the publication *Health—You've Got to Be Taught* (Louis Harris and Associates, 1989).

Code Blue

In 1989, the National Association of State Boards of Education recognized the dangerous trends in adolescent health. They asked the American Medical Association to join them in the formation of a National Commission on the Role of the School and the Community in Improving Adolescent Health. The Division of Adolescent and School Health of the Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, supported the project financially through a cooperative agreement.

Many sectors of society with major concerns for adolescent health were involved through representatives to the commission. The focus was on adolescence, primarily ages ten through eighteen, a time when attitudes, knowledge and actions can affect present and future health and well-being.

The commission gathered data from many sources, including:

- an invitational conference on adolescent health held at the Carter Presidential Center in Atlanta
- field visits to the states of Vermont and Florida

- a national meeting of state officials in Michigan
- feedback on commission thinking from 300 individuals' knowledge of adolescent health and public policy
- conversation and written responses from adolescents

These data sources yielded a wealth of information to be organized for actions at the local, state, and national levels.

The commission prepared a document titled *Code Blue: Uniting for Healthier Youth*. The term *Code Blue* was used because it signals a life-threatening emergency in hospitals and sets in motion a number of actions to save an individual's life. The document should initiate action among agencies, organizations and others to focus on adolescence as a critical period of life. Strategies developed as the result of these actions have the potential to reverse the growing trend of adolescent health problems (National Commission on the Role of the School and the Community in Improving Adolescent Health, 1990).

The commission recommended four major actions:

1. Guarantee all adolescents access to health services regardless of ability to pay.
2. Make communities the front line in the battle for adolescent health.
3. Organize services around people, not people around services.
4. Urge schools to play a much stronger role in improving adolescent health.

The report explained each recommendation in detail, and then described specific actions to implement the recommendations. A significant aspect of the fourth recommendation was that schools should implement a comprehensive school health education program kindergarten through grade 12. Even though the document is about adolescents, starting health education at kindergarten will strengthen the foundation of developing attitudes, knowledge, and actions. *Code Blue* has been distributed nationally and provides an excellent call to action for community members.

School Health Education Today

Today, school health education is one component of a comprehensive school health program:

> ...the comprehensive school health program...includes the development, delivery, and evaluation of a planned instructional program and other activities for students pre-school through grade 12, for parents and school staff, and is designed to positively influence the health knowledge, attitudes, and skills of individuals. (Report of the 1990 Joint Committee on Health Education Terminology, 1991)

A more inclusive description was developed by the Division of Adolescent and School Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention. This description is used by the division as they work with state and local education agencies:

> Health Education: A planned, sequential, K-12 curriculum that addresses the physical, mental, emotional, and social dimensions of health. The curriculum is designed to motivate and assist students to maintain and improve their health-related risk behaviors. It allows students to develop and demonstrate increasingly sophisticated health-related knowledge, attitudes, skills, and practices. The curriculum is

> comprehensive and includes a variety of topics such as personal health, family health, community health, consumer health, environmental health, family life, mental and emotional health, injury prevention and safety, nutrition, prevention and control of disease, and substance use and abuse. Health education is taught by qualified teachers who have been trained to teach the subject.

Recent data (Lovato, Allensworth and Chan, 1989) indicate that 32 states (63 percent) require health education to be taught sometime during kindergarten through grade 12, and 13 additional states (25 percent) require a combination of physical education and health education. If grade level requirements are reviewed, 19 states (37 percent) require that health education be taught sometime during grades one through six, and three additional states combine the health education requirement with physical education. The combining of health with physical education is a holdover from the early development of these two subject areas. School systems and state legislatures have been slow to recognize the differences and initiate change.

At the secondary level, 22 states (43 percent) require that health education be taught sometime during grades seven and eight, and four additional states still require health education combined with physical education. Twenty-five states (49 percent) require a course in health education for high school graduation, and six additional states (12 percent) require the combination for graduation. These statistics demonstrate that the goal of comprehensive school health education in all states and all schools remains a challenge for the profession and for health educators.

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Chapter 3

An Essential Strategy to Improve the Health and Education of Americans

Lloyd J. Kolbe, PhD

This chapter was presented as the Milton J. E. Senn Memorial Lecture at the 1992 American Academy of Pediatrics Annual Meeting. It outlines important challenges that currently confront the nation, describes why school health programs have become an essential strategy to improve both the health and education of our people, and portrays what the nation and its pediatricians must do if our schools are to meet the needs of Americans in the twenty-first century.

The demography and lifestyles of Americans changed during the twentieth century, and our health and education problems changed concomitantly. Today, one in four children lives with a single parent; one in five lives in poverty; one in five is of a minority race; and one in ten has a physical or mental disability (U.S. Department of Commerce, 1989, 1990; Commission on Minority Participation in Education and American Life, 1988; Hodgkinson, 1989). Each of these factors increases the likelihood of both health problems and educational failure.

The major health problems that confront our nation today are caused in large part by behaviors established during youth (e.g., tobacco, alcohol and drug use), and we pay increasingly to treat these health problems. In 1960 we paid 5 percent of our gross national product for health care; in 1991 we paid 12 percent; and by the year 2020 (given current trends) we will pay 23 to 32 percent (Advisory Council on Social Security, 1991). The increasing cost of health care is particularly detrimental to the one in five students who have no health insurance, and many health problems that afflict students erode both their health status and educational achievement.

Indeed, American students score no better today on standardized measures of educational achievement than their counterparts did twenty years ago (Mullis, Owen and Phillips, 1990). In science (Lapointe, Askew and Mead, 1992) and mathematics (Lapointe, Mead and Askew, 1992), American students score worse than their peers in most western industrialized nations. Furthermore, about 13 percent of White, 22 percent of African-American and 40 percent of Hispanic 19 to 20 year olds have not completed high school (National Center for Education Statistics, 1991). These measures of achievement bode ill for American youth, whose jobs will require more education, who will face more international competition, and who will support more retirees than their predecessors.

Given these challenges, school health programs could become one of the most efficient means the nation could employ to prevent the major health problems that confront us. By preventing health problems that afflict our young, and the adults they become, school health programs also could help improve educational outcomes, could help reduce the spiraling costs of health care, and thus could help improve economic productivity. Accordingly, during the past five years, about two dozen major reports have called for the nation to reconceive and regenerate its school health programs.

School health programs are essential to attain both national education goals and national health objectives by the year 2000. Between now and the year 2000, our nation will institute both education reform and health care reform. Thus, the actions we take (or fail to take) during the next few years to ensure that school health programs become part of education and health care reform will have a lasting impact.

What School Health Programs Could Become

From the late 1800s until the late 1900s, the school health program was conceived to have three components: health education, health services and health environments. During the 1980s, more sophisticated conceptions of the school health program were proposed. The Centers for Disease Control and Prevention (CDC) conceives the school health program to have eight interdependent components (Kolbe, 1986; Allensworth and Kolbe, 1987):

- health education
- health services
- biophysical and psychosocial environments
- counseling, psychological and social services
- integrated efforts of schools and communities to improve health
- food service
- physical education and physical activity
- health programs for faculty and staff

Such programs could enable the nation to efficiently implement and integrate primary, secondary and tertiary disease and injury prevention interventions for the 45 million youth who attend school every school day. In the lexicon of public health and medicine, this means that schools could prevent many health problems from occurring, detect health problems that do occur during their early stages when they are most treatable, and treat those problems that have not been or cannot be prevented, to preclude adverse effects on health and education. This chapter will focus on how two components of the school health program, school health education and school health services, could prevent and mitigate our most pressing public health problems.

Primary Prevention Through Comprehensive School Health Education

To understand how schools could prevent major health problems from occurring (i.e., through primary prevention), one must first understand the nature of those problems. Reviews of the leading causes of mortality and morbidity suggest that only six categories of behavior cause most of our major health problems:

- behaviors that cause unintentional and intentional injuries
- drug and alcohol use
- sexual behaviors that cause sexually transmitted disease (STD), including HIV infection, and unintended pregnancies
- tobacco use
- inadequate physical activity
- dietary patterns that cause disease

These behaviors usually are established during youth, persist into adulthood and are interrelated. They contribute simultaneously to poor health, education and social outcomes; and they are preventable (Kolbe, 1990; Kann, 1993).

One of the most efficient means of preventing these behaviors is comprehensive school health education, definitions of which have been offered by various groups during the past few decades

(Education Commission of the States, 1981; National Professional School Health Education Organizations, 1984; National Commission on the Role of the School and the Community in Improving Adolescent Health, 1990; Joint Committee on Health Education Terminology, 1991; U.S. Congress, 1991). CDC and many other agencies believe that planned and sequential, kindergarten through grade 12, comprehensive school health education programs, which purposefully integrate health education about important categorical topics (e.g., HIV, STD, unintended pregnancy, alcohol, drugs, tobacco), can be more effective and efficient than desultory school efforts to address single categorical topics without a broader school health education program framework.

Support for school health education grew during the late 1980s, principally through three initiatives. First, Congress provided roughly $500 million per year for the U.S. Department of Education to help schools provide drug abuse education. Second, Congress provided roughly $4 million per year for the Department of Education to support comprehensive school health education demonstration projects. And third, Congress provided roughly $40 million per year for CDC to help schools provide HIV education.

CDC Efforts to Improve School Health Programs

In 1988, CDC established a National Center for Chronic Disease Prevention and Health Promotion, within which it created a new Division of Adolescent and School Health (DASH). The mission of DASH is to identify major health risks and health problems among youth, monitor the prevalence of these health events over time, implement national programs to prevent these events, and evaluate the impact of those programs.

During the last few years, DASH has built the infrastructure necessary to enable the nation's 100,000 schools to prevent sexual and injecting drug use behaviors that spread HIV infection. This infrastructure, which has been described in more detail elsewhere (Moore et al., 1992), includes seven ongoing interactive elements:

- about sixty programmatic and scientific staff in DASH, about a third of whom comprise a program branch organized to provide technical and financial assistance to agencies, and about a third of whom comprise a research branch organized to assess and consequently improve those programs
- surveillance systems to identify and monitor major health events among youth and efforts to prevent those events
- fiscal and technical support for every state and 17 large city education agencies to implement programs
- fiscal and technical support for more than twenty national education and health agencies (e.g., the National Association of State Boards of Education and the American Medical Association) to support programs
- an information development and dissemination system, one function of which is to develop school health guidelines
- more than fifty school health training and demonstration centers across the nation
- an evaluation system to assess and improve the effectiveness of program efforts.

DASH also is implementing efforts to help prevent HIV infection and other important health problems among American college students and youth in high-risk situations, and among school-age youth globally.

From the very beginning, however, CDC built this infrastructure as a means not only to help prevent HIV infection but also to help prevent other important health risks and health problems as resources became available. Indeed, many believe that HIV education programs, and other such categorical programs, can be more effective if they purposefully are implemented as an integral part of the broader school health program.

In 1992, CDC started using the infrastructure established to help schools prevent HIV infection to also help schools prevent other important health problems in the District of Columbia and three states with the highest overall mortality rates: Arkansas, Florida and West Virginia. In 1993, Wisconsin was added to the list. West Virginia will serve as a national demonstration and training center and will provide funds for interested officials from other states to visit West Virginia and examine its efforts.

CDC will provide fiscal and technical support to each of these four states to accomplish two functions. First, CDC will provide support to establish a senior policy position in the office of the state school superintendent, and a similar position in the office of the state health commissioner, to work independently and jointly to improve all components of school health programs in that state. As a major part of this function, each state may help public and private health care providers and insurers to deliver health care services through schools by establishing the necessary organizational means, personnel, legal authorities and mechanisms for integrating and financing such services, especially for the most needy students.

Second, CDC will provide support for each of the four state departments of education to establish a comprehensive school health education position to integrate efforts to reduce risk behaviors in each of the six categories described earlier. As part of this function, CDC will provide support for these four states to reduce risk behaviors in each of the following categories: tobacco use, diets that cause disease, physical inactivity, and sexual behaviors that cause HIV infection and other STD. At this time, CDC is not providing categorical resources to reduce sexual behaviors that cause unintended pregnancy, behaviors that cause unintentional and intentional injuries, or drug and alcohol use (although cooperative agreements with these states are written to support such programs if resources become available).

To accomplish these two functions, CDC and the four demonstration states will work with four core federal agencies—the U.S. Department of Health and Human Services (DHHS) Office of Disease Prevention and Health Promotion, the DHHS Office of the Assistant Secretary for Planning and Evaluation, the DHHS Health Resources and Services Administration (HRSA), and the U.S. Department of Education Office of the Assistant Secretary for Elementary and Secondary Education—and with other relevant categorical agencies as warranted (e.g., the U.S. Department of Agriculture and the President's Council on Physical Fitness and Sports). In addition, these federal and state agencies hope to work with the Council of Chief State School Officers, the Association of State and Territorial Health Officers, and the American Public Welfare Association (which represent the nation's state school superintendents, state health commissioners and state social service directors respectively) to ensure the success of the four demonstration states and to examine the potential for replicating similar efforts in the other 47 states.

To help manage activities with the demonstration states, DASH has added a new special projects branch that includes staff with expertise in preventive health services, adolescent health, tobacco, diet and physical activity. In 1993, this branch will convene relevant national organizations to help CDC develop separate guidelines for school programs to prevent tobacco use, diets that cause disease, and physical inactivity, and guidelines for comprehensive school health education programs. These guidelines will address multiple components of the school health program, including the physical education program, the school food service program and policies governing tobacco use in the school environment. Staff in the special projects branch will help implement these school health guidelines in the demonstration states.

Also in 1993, CDC will invite the remaining 47 states to apply for support to perform the two functions summarized earlier. In 1993, CDC will provide support for one or two of these 47 states, and in subsequent years may provide support for other states that apply for and are approved for funding in 1993. In addition, in 1993, CDC will invite national education, health and social service organizations to apply for support to help improve the capacity of schools and other agencies that serve youth to prevent HIV infection and other important health problems among youth. CDC will provide such support for twenty to thirty national organizations.

In 1992 a bill, currently pending in Congress, was introduced to authorize $500 million to create healthy American schools. If Congress passes and funds this Healthy Students–Healthy Schools Act, it would enable CDC to provide fiscal and technical support for state and local education agencies to develop and maintain comprehensive school health education programs in our nation's schools.

National Health and Education Goals

Such school health education programs are essential to attain important National Health Objectives and National Education Goals. National Health Objective 8.4 states that "By the year 2000, [we should] increase to 75 percent the proportion of the Nation's elementary and secondary schools that provide planned and sequential kindergarten through twelfth grade quality [or comprehensive] school health education." Relatedly, other National Health Objectives call for schools to provide education about specific categorical health problems, "preferably as part of quality [i.e., comprehensive] school health education," including education about nutrition, tobacco, human sexuality, HIV, sexually transmitted disease, injury prevention, conflict resolution, and drugs and alcohol (U.S. Department of Health and Human Services, 1991).

Achieving the last three of these National Health Objectives (i.e., providing education to prevent injuries, violent conflicts and drug and alcohol use) will be vital to achieve National Education Goal 6, which states that "By the year 2000, every school in America will be free of drugs and violence and will offer a disciplined environment conducive to learning" (National Education Goals Panel, 1991).

In 1991, the U.S. Public Health Service (PHS) established a Life Science Education Initiative to achieve two goals: to foster scientific literacy (including biomedical scientific literacy) in the U.S. population, and to ensure that adequate numbers of well-trained biomedical personnel are available to meet future national needs (National Institutes for Health, 1992). As a key part of this initiative, CDC and other PHS agencies are acting to help schools improve and link life science education and health education, and to help American students understand the scientific basis for health promotion and disease prevention. Thus, this initiative could help achieve National Education Goal 4, which states that "By the year 2000, U.S. students will be the first in the world in science and mathematics achievement" (National Education Goals Panel, 1991).

Given the nature of health and education problems today, education about health is as important as education about science and mathematics. In effect, school health education could help immunize our young people against behavioral causes of illness and death, as school health services help immunize them against infectious causes. School health services also might provide secondary and tertiary disease and injury prevention.

Secondary and Tertiary Prevention Through School Health Services

Various preventive and acute health care services can be provided to youth largely through private medical practices, health maintenance organizations, hospitals, community health centers and schools. Schools could provide an efficient means to detect and address health problems (i.e., facilitate secondary and tertiary prevention) simply because they serve all children, rich and poor alike, every school day for thirteen developmentally critical years. If health services are to be provided through schools, however, health, education and social service agencies will need to establish the necessary organizational means, personnel, legal authorities and mechanisms for integrating and financing such services. Public and private health care providers and insurers will need to work closely with school administrators to determine means by which health care providers might systematically deliver health services through schools, especially for the most needy students.

During the course of the twentieth century, three means evolved to provide health services through schools: the traditional school nurse, nurse practitioners in schools, and school-based or school-linked clinics. Recent events have stirred more interest in the third means, school clinics. A U.S. Congress Office of Technology Assessment report entitled *Adolescent Health* described several options to support school-linked or community-based clinics for adolescents (U.S. Congress, 1991). The Advisory Council on Social Security recommended that the federal government enable states to establish health clinics in or near elementary schools and share with states the costs of providing health and dental services for poor children (Advisory Council on Social Security, 1991). State departments of health would operate the clinics either directly or through arrangements with health care providers.

In 1992, although funds were not provided, President Bush requested in his FY93 Budget $6 million for the Health Resources and Services Administration to enable 35 to 50 eligible agencies to provide school-linked or school-based health services to disadvantaged children three to twelve years old and to their families (Bureau of Health Care Delivery and Assistance, 1992). Eligible agencies would include funded community and migrant health centers, health care for the homeless programs, health care for the residents of public housing programs, and other federally qualified health centers.

Schools thus could provide preventive health services through one or some combination of three means—the traditional school nurse, nurse practitioners in schools, and school-linked or school-based clinics. For any of these means, the school nurse could serve as a linchpin for providing certain health services, as well as for helping to coordinate the broader school health program. Because these three means provide a progressively greater range of services, they require that school nurses and others acquire progressively greater training, credentials and legal authority (Pearson, 1992).

These three means also require progressively advanced mechanisms for integrating and financing necessary services. Indeed, because educational achievement suffers from fragmented efforts to serve children and families who have multiple education, health and social problems, the need to integrate, or co-locate, education, health and social services through schools has become more compelling. Numerous strategies and models have been designed to integrate preventive health and social services through schools, and the Department of Education and DHHS recently compiled a *Practical Guide to School-Linked Service Integration.*

In 1992 a bill, currently pending in Congress, was introduced to authorize $250 million per year to help coordinate and deliver comprehensive education, health and social services to youth in school-based, school-linked or community-based locations. Financing for school health services will need to be provided and integrated from a wide range of sources, including federal, state and local health, education, human service, agriculture, labor and juvenile justice programs (Farrow and Joe, 1992). One source of funds available to help state health departments improve school health programs is the Preventive Health and Health Services Block Grant (Public Law 102-531).

Two prominent sources of funds for school health services might be Medicaid and Chapter 1. Congress recently expanded the Medicaid program to phase in coverage for all poor children under 19 years of age by the year 2002. About 80 percent of Medicaid-eligible children currently receive Medicaid-reimbursed services in a given year (Health Care Financing Administration, 1993). Medicaid's Early Periodic Screening, Diagnosis and Treatment (EPSDT) Program is designed to provide comprehensive health services and case management for children enrolled in Medicaid. In 1992, the Health Care Financing Administration published *EPSDT: A Guide for Educational Programs* to acquaint school officials with state Medicaid agencies, the EPSDT program and benefits of participating.

Chapter 1 of Title I of the Elementary and Secondary Education Act is the chief federal program designed to meet special needs of educationally deprived children. In general, Chapter 1 funds can be used only for students who are educationally deprived. However, for schools in which at least 75 percent of the students are from poor families, funds may be used to benefit all students in the school. Currently, about 2,100 of 7,000 potentially eligible elementary schools have successfully applied to become such schoolwide Chapter 1 projects.

Differences in eligibility criteria between Medicaid and Chapter 1 programs create a barrier to integrating covered services for children in poor families and communities. To address this barrier, DHHS and the Department of Education have been examining whether states might be given the option to extend Medicaid EPSDT eligibility to all preschool and elementary school children in areas that receive schoolwide Chapter 1 funding, provided that the states deliver relevant school-linked health care services through case-managed, coordinated care mechanisms. Thus, a capitated, coordinated approach could be used to provide health services to all school-age and preschool-age children within such areas. California, Ohio, Pennsylvania, Texas and West Virginia are exploring the feasibility of using and integrating Chapter 1 and Medicaid in this way.

In addition, CDC is providing support for the Columbia University School of Public Health to identify major barriers that prevent schools from providing effective health services and to suggest actions to help schools address these problems.

National Health and Education Goals Revisited

Thus, schools could help ensure that all students, but especially the most needy, receive the health services they need to learn and stay in school. The first National Education Goal states that "By the year 2000, all children in America will start school ready to learn." The intent of this goal is to ensure that children receive the parental, social and health care support they need so that when they first enter preschool or kindergarten they are ready to learn.

To the extent that elementary schools include preschool programs, school health services could be a vital part of the overall strategy to achieve this objective. But, perhaps more important, school health services could help assure that after they first start school, all students in kindergarten through grade 12 continue to enter school every day healthy and thus ready to learn. Undoubtedly, such school services also could help achieve the second National Education Goal, that "By the year 2000, the high school graduation rate will increase to at least 90 percent."

In summary, the school health program could help in attaining more than one third of the 300 National Health Objectives, either directly (e.g.,"Establish tobacco-free environments and include tobacco use prevention in the curricula of all...schools....") or indirectly (e.g., "Reduce the initiation of cigarette smoking by children and youth...."). Analogously, school health programs could help attain all six of the National Education Goals, either directly (e.g., "Every school will be free of drugs and violence....") or indirectly (e.g., "American students will...[have] demonstrated competency in challenging subject matter....") (McGinnis and DeGraw, 1991; Novello, DeGraw and Kleinman, 1992).

What Does the Nation Need to Do to Improve School Health Programs?

What will the nation need to do to improve school health programs? There may be five strategic requirements. First, decision makers and the public, including school administrators, teachers and parents, must be informed about the current need for and nature of school health programs. Indeed, parents and concerned community members should be integrally involved in determining the nature of school health programs in their community. If decision makers and the public do not understand such programs, they are not likely to perceive them to be a priority for our schools and our young people.

Second, government education, health and social service agencies at the national, state and local levels will need to work together as partners to implement school health programs. Education agencies have the mandate to improve educational outcomes, the authority to establish education policies, and the organizational capacity to implement school programs. Health agencies have the mandate to improve health outcomes, access to fiscal resources for health, and a wide range of health expertise. Social service agencies have the mandate to support the disadvantaged, have access to social service resources, and have means and expertise to help improve health and education outcomes among the disadvantaged. Health, education and social service agencies need to establish administrative means to combine their respective resources.

Third, many important national nongovernmental organizations, and their constituents at the state and local levels, must be involved. Examples of these organizations include the Council of Chief State School Officers, Association of State and Territorial Health Officers, American Public Welfare Association, American Academy of Pediatrics, National Congress of Parents and Teachers, and the American Council for Education, which represents leadership in higher education.

Fourth, the nation's universities also need to be involved. Colleges of education, public health, medicine, nursing, social work, and allied health, among others, might establish interdisciplinary efforts in the following areas:

- help analyze the role of schools in improving health
- provide local, state and national leadership and technical assistance to improve school health programs

- modernize and provide preservice and inservice training for education, health and other professionals
- conduct research to assess and improve the impact of programs

Finally, many national, state and local philanthropies have accomplished much to improve school health programs. For instance, the Carnegie Corporation of New York has provided support for 27 states to facilitate educational reform in middle grades, including reform of school health programs (Council of Chief State School Officers, 1992), and the Robert Wood Johnson Foundation has provided support to establish demonstration school-based clinics throughout the United States (Lear et al., 1991). These philanthropies should be integrally involved in any national effort to improve school health programs.

National, state and local governmental agencies will need to plan and enact strategies to improve school health programs collaboratively with each other, and with relevant nongovernmental organizations, universities and philanthropies. Each of these agencies is dependent upon the others for its success. Accordingly, in 1993, and annually thereafter, CDC will convene representatives of these agencies to analyze and plan collaborative strategies for improving school health programs nationwide.

Much has been accomplished recently to establish the groundwork for improving school health programs. In the public sector, the DHHS Office of Disease Prevention and Health Promotion has spearheaded efforts to publish a *Directory of Federal Programs and Activities Related to Health Promotion Through the Schools* and to convene an Interagency Committee on School Health (comprised of about thirty federal agencies) and a National Coordinating Committee on School Health (comprised of about thirty national nongovernmental organizations). Both of these committees are cochaired by the DHHS Assistant Secretary for Health and the Department of Education Assistant Secretary for Elementary and Secondary Education. The U.S. General Accounting Office has launched a study of social services provided through schools and a study of clinical services provided through schools; and the DHHS Office of the Inspector General has initiated a study of school-based health services.

Additionally significant to school health programs, the U.S. Public Health Service recently established a Steering Committee on Adolescent Health, and the Congress authorized an Office of Adolescent Health in the Office of the Assistant Secretary for Health. To assess and monitor progress in improving the nation's school health programs, CDC recently initiated a study to describe the nature of various components of the school health program among a probability sample of the nation's 100,000 schools.

In the private sector, a National School Health Education Coalition and a National Health/Education Consortium have been established, and the American Cancer Society has launched a major effort to improve the nation's school health education programs (American Cancer Society, 1990, 1993). Much more remains to be done, however, and those entrusted with the health of our youth—the nation's pediatricians—have a critical role to play.

The Role of Pediatricians

If our nation's schools are to protect and improve the health of our young people, organizations that represent pediatricians will need to provide leadership at the national, state and local levels on two fronts simultaneously. First, pediatricians will need to work with educators, parents and other concerned community members to ensure that their schools provide effective health programs. Second, pediatricians will need to help determine the following:

- the type of health programs, especially health services, that schools should provide
- whether schools should provide such programs for all students or only the most needy
- the role of the pediatrician in the school health program
- ways to encourage, train and compensate pediatricians to work with schools

The American Academy of Pediatrics (AAP) traditionally has provided national leadership to improve school health programs. About 15 years ago, AAP called for better training of pediatricians to help improve school health programs (American Academy of Pediatrics, 1978), and the forthcoming AAP publication entitled *School Health: A Guide for Health Professionals* will be a vital instrument for improving school health programs in the future.

In September 1992, at the AAP Media Conference on "Crisis in the Classroom: The Undeniable Link between Health and School Readiness," AAP President Dr. Daniel Shea summarized what needs to be done:

> As a pediatrician, two thoughts emerge. First, I agree with educators that physicians and medical organizations must work in the public policy arena. [And second,] physicians need to enhance their working relationships with educators.... The bottom line is that health care professionals, schools and parents must work together to resolve this crisis.

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Programmatic Issues

c. 4

Chapter 4

Planning for a Comprehensive School Health Program

William M. Kane, PhD, CHES

Structuring schools to provide opportunities for children to reach their fullest health potential requires collaboration among parents, families, communities and school leaders. The foundation for planning an effective school health program consists of family and community values and aspirations; community, school and family resources; epidemiologic data; and educational and behavioral research. (See Figure 1.)

Figure 1
Foundation of School Health Programs

Family and Community Values and Aspirations	Community, School and Family Resources	Epidemiologic Data	Educational and Behavioral Research

The schools' role in fostering the healthy development of children and youth goes beyond the teacher providing a health education class. Although health education is a critical component in a child's healthy development, schools must undertake other efforts to support the healthy development of children. Diane Allensworth and Lloyd Kolbe (1987) identified several areas in which schools should establish efforts to promote the health of children, youth and staff. Their framework identifies the following eight components of schools that can be organized and combined to create a comprehensive program:

- school health education (instruction)
- healthy school environment
- school health services
- physical education and fitness
- school nutrition and food services
- school-based counseling and personal support
- schoolsite health promotion
- school, family and community health promotion partnerships

These components can provide guidance as school leaders strive to provide leadership in organizing the resources of the community and school to promote the healthy development of children and youth.

School Health Education (Instruction)

School health education or instruction is a combination of educational activities with the following aims:

- to increase students' health knowledge
- to develop health-promoting skills
- to provide opportunities for the application of health knowledge and skills

- to reinforce and foster the continued practice of healthy behaviors

Health education is the classroom curricular component of the overall plan to foster healthy development of children and youth. The end goal of school health education is to give children and youth the knowledge, skills, opportunities and support to develop to their fullest potential. School health education should be based on a planned and sequential curriculum that interacts with other components of the comprehensive health education program to enable young people to achieve optimal health.

The curriculum is planned in that it should be based on the current documentable threats to the health of young people. School leaders can look to national, state and local morbidity and mortality statistics for some of this data. Behavioral risk factor data that identify behaviors that put youth at increased risk of future health problems is available from the Centers for Disease Control and Prevention and state departments of health.

The aspirations of families and communities, as well as the hopes of the students themselves, are also important foundations upon which to base health curricula. Successful school health education programs involve a wide range of individuals, including:

- students and their families
- community members
- representatives of business, health and social service professions
- clergy
- community activists

All of these people should be represented in the process of planning a curriculum that is appropriate and sensitive to the cultural needs and values of the community and school. A health education curriculum based on a collectively shared vision of the importance of the health of children is the first step toward helping all children develop to their optimal health potential.

Curriculum Content

Although school districts often have different names for the content areas of their particular curriculum, the range of topics included in most school health curricula can be grouped into the following ten areas:

- prevention of alcohol and other drug use
- nutrition and healthy eating
- family life education
- mental and emotional health
- environmental health
- injury prevention and safety
- personal health and fitness
- disease prevention and control
- community health
- selecting health options (consumer health)

Not all ten content areas are covered at each grade level. Decisions regarding scope and focus of the curriculum at each grade level are based on what is appropriate to interests, needs and physical and mental development of students. The health education curriculum and content should be sequential, each year building on and reinforcing the knowledge learned and the skills developed at earlier grade levels.

Health Skills

Health education curricula include both content and process. The process, or *skills development,* is a major focus of the curriculum and classroom activities. These health-related skills are defined a bit differently by each school district, but fall into the following general categories:

- assessing personal health and risks
- gathering and assessing health information
- rewarding healthy behavior
- communicating with others
- making decisions
- negotiating for health
- managing stress
- setting and achieving goals

School leaders will want to develop a curriculum that provides learning opportunities for students to acquire health awareness and the knowledge, skills and opportunities to practice healthy behavior, and encourages and reinforces the development of healthy lifestyles. A curriculum of this type relies heavily on experiential learning.

Unlike curricula in many areas, a health curriculum is in a constant state of change, reflecting developments in culture, society, technology and behavioral sciences. An annual review should be conducted to determine the continuing relevance of the curriculum to the priorities and needs of the local community and the growing body of health and medical science.

Instructional Time

Planning for instructional time is another important issue for school leaders to consider in developing the school health education program. Most authorities recommend that elementary and middle school students experience the equivalent of two to three hours of health education each week. Integration of health education learning experiences into other subject-oriented learning experiences can be successfully accomplished.

However, experience shows that many schools that report using the integrated approach are not successful in helping students gain the knowledge, develop the skills and find the opportunities to practice healthy behaviors. This lack of success many be due not to the integrated approach, but to the level of commitment, time and priority the teachers and school place on quality health instruction. Many leaders recommend that elementary schools establish specific times for health instruction, as well as integrating health education with other subjects in the curriculum.

Health education should continue beyond elementary school. Early adolescence is a critical time; young people are exploring various behaviors, making choices and establishing lifetime health behaviors. Health education in middle school grades should include sixty to seventy hours of direct instruction and learning experiences each year. At the high school level, students should be encouraged to include at least two semesters of health instruction in their schedule.

Teacher Skills and Preparation

The skills and preparation of the classroom teacher are critical to the success of school health education. Teachers should be professionally prepared, either through preservice or inservice education, to implement health curriculum, to foster health-related learning, to help students develop health and life skills, and to work with the school, families and community to provide opportunities to practice this healthy behavior.

Teachers should keep in mind that the health needs and interests of their students will be personal and will differ from student to student, from class to class and from community to community. The optimal school health education program will allow the skilled teacher to modify learning opportunities accordingly.

Teachers should be fully prepared in the following areas:

- handling controversial health issues and content
- experiential learning
- peer education, cooperative learning and cross-tutoring
- questioning strategies to foster development of critical thinking
- health counseling
- family relations and counseling
- advocacy
- life-skills training
- rewarding healthy behavior
- modeling healthy behavior

Administrative Leadership

Administrative leadership in providing policy, funding and support for training and materials to implement successful health education programs is also important. School leaders have a responsibility to work with their communities, initiating action and providing leadership in policy and funding areas.

Instructional Materials

Instructional and educational materials for health instruction include a wide range of textbooks, prepackaged curricula and supplementary texts, videos and other materials that can be used in conjunction with local and state-developed curricula or commercial curricula.

Healthy School Environment

A safe and healthful environment is important for education. Schools should not be places where students and teachers fear for their personal safety. Harassment from gang members and drug pushers and resolution of conflict by violent actions has no place in the school.

Commitment to regular safety inspections and emergency drills, provision of safe and orderly transportation, adherence to environmental regulations and standards, and clean, safe and well-maintained school grounds and buildings communicate a message to all by establishing health norms and expectations. The physical surroundings in which students and teachers are expected to work should promote healthy behaviors.

Likewise, students' personal achievements and social growth are fostered by the psychological environment of the school. Not surprisingly, research has found that a favorite teacher is frequently a positive role model in a child's life. Teachers not only help students develop academic skills, but also provide positive models for students' personal identification and development. The emotional and physical health and the social, problem-solving and conflict-management skills demonstrated by teachers influence young people.

The health norms and social expectations created by the school support healthy development of students. Benard (1991) has identified the level of caring and support within the school as a powerful predictor of positive outcomes for youth. Researchers have concluded that schools that are successful in helping young people overcome problem behaviors project clear expectations and regulations, emphasize academics, have high levels of student participation, foster high self-esteem and promote social and scholastic success. Schools that establish high expectations for all students and provide the support necessary to achieve these expectations have high rates of academic success. Benard's review of the research on the school's role in developing resilient youth concludes that the caregiving environment of the school can serve as a protective shield in reducing levels of alcohol and other drug use.

School Health Services

The provision of health services by schools emerged near the end of the nineteenth century in response to compulsory education laws. The focus of these services was to prevent and control infectious diseases and exclude children who represented a health threat to others.

Much has changed over the past one hundred years. The 1990 Joint Commission on Health Education Terminology definition of school health services identified both the school health services personnel and their responsibilities. (See Appendix B for the full text of the report.) School health service personnel include the following individuals who appraise, protect and promote the health of students and school personnel:

- physicians
- nurses
- dentists
- health educators
- allied health personnel
- social workers
- teachers

The definition goes on to describe school health services as those activities designed to:

- ensure access to and appropriate use of primary health care services
- prevent and control communicable disease
- provide emergency care for injury or sudden illness
- promote and provide optimum sanitary conditions in a safe school facility and environment
- provide concurrent learning opportunities conducive to the maintenance and promotion of individual and community health

For example, health services provided by the school and community to all students in one Massachusetts school district include:

- immunizations
- vision and hearing screening
- fluoride dental rinse program
- dental screening, sealants and cavity repair
- physical evaluation
- speech therapy
- postural screening
- pediculosis (body lice) screening
- health assessment and individual education plans
- child abuse assessment
- prekindergarten and kindergarten screening
- management of asthmatics
- mental health counseling and referral
- family outreach/parent support groups
- inservice education for staff
- supplemental health education in classrooms

School nurses have traditionally been the focal point for health services in the schools. School nurses are also a key resource for the other components of the overall school health program, as they provide health education and act as consultants on community and family health. Unfortunately, there are only about 30,000 school nurses throughout the United States to serve 42 million students. The National School Nurses Association recommends a ratio of one nurse for every 750 students. To achieve this ratio, we would need more than twenty thousand additional school nurses. In the absence of adequate funding for school nurses, many schools rely on a school secretary to administer first-aid and minor medications.

Rapidly escalating health care costs have combined with today's unstable employment market to leave many adults and their children without medical insurance and with limited access to primary health care. As a result, many schools and communities are exploring alternative methods of providing health services for young people.

More than one hundred health clinics based in schools have emerged over the past decade. These clinics provide a full range of primary health care services and act as a point of referral for students requiring more extensive diagnostic work, treatment and rehabilitation. Unfortunately, many of these clinics have become embroiled in controversy surrounding the provision of sexuality counseling and birth control devices. By the end of high school, 60.8 percent of males and 48 percent of females report they have had sexual intercourse (U.S. Department of Health and Human Services, 1990). About 60,000 babies are born each year to adolescent girls under fifteen years of age. Family planning counseling and provision of services are appropriate roles for school-based clinics.

Some schools (and communities) are experimenting with health insurance coverage for students. Actually, the concept of accident insurance for students has been around for decades. Today's student health insurance has been expanded to cover regular checkups, immunizations, hospitalizations, outpatient care, prescriptions, eyeglasses and drug and alcohol treatment and rehabilitation. These insurance plans are being financed through community fundraising, public health agencies and private insurance carriers.

In every school, the physical and mental health needs of some students will exceed the immediate resources of the school and its personnel. Paying for health care is an expensive and complex societal issue. However, good health is essential for learning and for achieving one's fullest potential. School leaders need to work closely with families, community leaders and health and social service providers to establish a systematic health care system for students.

Physical Education and Fitness

It is widely held that participation in physical education activities promotes health development. More than 97 percent of this country's elementary school children and 80 percent of its secondary school students have access to organized physical education. Students in elementary schools take physical education an average of 3.1 times weekly, with 36.4 percent taking classes daily. At the high school level, students take physical education an average of 3.9 times weekly, with 36.3 percent taking classes daily (Office of Disease Prevention and Health Promotion, 1984).

The popular literature attributes a large range of benefits to physical exercise, including:

- improved cardiovascular and physiological functioning
- reduction of stress
- reduction of weight and body fat
- improved skeletal and muscle structure
- increased sense of self-worth
- improved academic performance

Indeed, research findings seem to support many of these popular beliefs. Yet despite the growing body of knowledge regarding the effects of physical fitness and exercise on health, and the long existence of physical education programs in America's schools, all is not well. The National Children and Youth Fitness Study released in 1984 cited the following problems:

- Body fat of today's youth is significantly greater than in the 1960s.

- Only 50 percent of today's youth participate in appropriate physical activity.
- Only 50 percent of the students in twelfth grade participate in physical education classes.
- Physical education teachers devote most classroom time to competitive sports and other activities that have questionable health effects and that cannot readily be performed once one reaches adulthood.

Recognizing the importance of exercise, the U.S. Department of Health and Human Services *Healthy People 2000* (1991) recommends that by the year 2000 "schools increase by at least 50 percent [from 36 percent to 54 percent] the proportion of children and adolescents in 1st through 12th grade who participate in daily school physical education" (Objective 1.8).

The proportion of students participating in daily physical education is one measure of the quality of school-based physical education. Another measure of quality identified by *Healthy People 2000* is students' exposure to information about how and why to partake in activities, and encouragement to develop skills that allow for out-of-school and lifetime activities. Lifetime physical activities are defined as those activities in which individuals can participate throughout their lives. They include tennis, badminton, golf, hiking, individual exercise, swimming and bicycling. They do not include football, soccer, baseball, basketball or most of the competitive team activities that commonly dominate the high school curriculum.

Healthy People 2000 recommends that by the year 2000 we "increase to at least 50 percent [baseline 27 percent in 1984] the proportion of school physical education class time that students spend being physically active, preferably engaged in lifetime physical activities" (Objective 1.9). Studies indicate that only 27 percent of the current physical education classroom time is spent in actual physical activity, while 26 percent is spent in instruction, 22 percent in administrative tasks and 25 percent waiting.

Physical education is another area of the school health program that requires coordination between schools, families and communities. The typical student in fifth through twelfth grades reports that more than 80 percent of his or her physical activity takes place outside of physical education classes. The majority of this time is spent in activities sponsored by community organizations, including religious groups, parks and recreation programs, local teams and private organizations.

Healthy People 2000 calls for more class time to be spent engaged in lifetime activities and more emphasis given to developing knowledge, attitudes, cognitive skills and physical skills students need to remain physically active throughout life. To achieve these objectives and provide physical education experiences that promote healthy development, teachers responsible for physical education programs need preservice or inservice training. District or school level physical education specialists can become responsible for the inservice education of nonspecialized teachers responsible for physical education classes. In addition, a team including the physical education specialist should assume responsibility for overall curriculum scope, sequence and implementation.

School Nutrition and Food Services

The history of school nutrition in the United States is a study in politics. It wasn't just by chance that the establishment of school lunch programs coincided with the nation's overproduction of food. School lunches became a convenient "dumping ground" for surplus food commodities, providing low-cost food for America's children. However, surplus farm products (milk, eggs, meat, cheese) were not always the healthiest foods.

At the same time, nutrition education emerged as an important function of the U.S. Department of Agriculture, the same organization that had encouraged overproduction of food and established the school lunch assistance programs. In the late 1970s, the U.S. Department of Health and Human Services, after long and difficult negotiations with the Department of Agriculture, made a series of recommendations in *Dietary Guidelines for Americans.* The 1990 edition of these recommendations urged Americans to make the following changes in their eating habits:

- reduce intake of fat to less than 30 percent and saturated fats to less than 10 percent of the total dietary intake
- increase consumption of fruits and vegetables
- reduce intake of sugar
- increase consumption of whole-grain products
- reduce consumption of salt
- reduce total calorie intake

These guidelines established new criteria for measuring the nutritional value of school lunch programs. Although many schools today incorporate the principles of the *Dietary Guidelines,* such nutritional planning should be universal.

Healthy People 2000 recommends we "increase to at least 90 percent the proportion of school lunch and breakfast services...that are consistent with the nutritional principles in the *Dietary Guidelines for Americans*" (Objective 2.17). To accomplish this objective, school meals must provide choices that include low-fat foods, vegetables, fruits and whole-grain products. Doing so will also provide opportunities for students to practice the health knowledge and food selection skills introduced in school-based health education instruction.

To support this learning experience, *Healthy People 2000* recommends that schools offer "point-of-choice" nutrition information in the school cafeteria. Point-of-choice nutrition information includes information on nutrient value and calories of the foods being served. Such information enables students to choose healthy food. *Healthy People 2000* further recommends that school fundraising activities that involve food sales, on-site vending machine offerings and food service offerings at concession stands during recreational and other events should also reflect the principles of the *Dietary Guidelines for Americans.*

For many children, especially poor children, school breakfast, lunch and snack programs constitute a significant portion of their daily nutritional intake. In these cases, school food service personnel, and particularly cafeteria managers, are the gatekeepers to childrens' food supply. The school's nutritional program provides an excellent opportunity to establish health norms and model healthy nutritional behaviors. Schools that provide healthy food choices and discourage availability of unhealthy foods send a clear message to developing youth. Schools can also involve students in the planning of menus and preparation of food as a hands-on learning experience.

Nutritional policies consistent with scientific health findings and in the best interest of students demonstrate a school's commitment to the development of healthy youth. Such policies, with opportunities for students to practice nutritional knowledge and food selection skills in the lunch line, are consistent with the overall concept of a healthy school.

In some communities, school food service personnel spend time in the classroom working with teachers delivering nutrition instruction to students and preparing educational materials that enable students' families to support the classroom instruction. For students with special nutritional needs, close cooperation between school health services personnel and food services personnel is a critical factor in these students' achievement of optimal health.

School-Based Counseling and Personal Support

The school counseling program was originally implemented in the 1960s to provide vocational guidance for students. Today, school counselors and psychologists work in partnership with teachers, parents and community personnel to respond to special needs and provide personal support for individual students, teachers and staff. In addition, in many schools, counseling staff have initiated programs that promote schoolwide mental, emotional and social well-being.

The American School Counselor Association (ASCA) identifies the major aims of school-based counseling as follows:

- help students increase communication skills
- improve the quality of interaction between adults and youth
- encourage the learning process
- sensitize administrators and teachers to the necessity of matching the curriculum to the developmental needs of the students

The school counselor works to meet these goals by "structuring developmental guidance to promote psychological aspects of human development; individual and small group counseling; consultation with and inservice training for staff, parents and community groups; and performing needs assessment to guide interventions" (Klingman, 1984).

A recent study found that school counselors routinely interact with students on the following issues:

- divorce
- substance abuse by students or their parents

- teen sexuality and pregnancy
- depression
- suicide
- sexual and physical abuse
- problems with family members or friends
- concerns about career and future
- questions about the meaning of life

Counselors also often become involved in providing assistance to teachers and other school staff and their families. The activities of school counselors frequently bring them in contact with families of students and with community health and social service workers. Counselors often become advocates for students' interests.

Like teachers, counselors must be sensitive to the unique cultural backgrounds of students and their families. An understanding of the family and cultural values that guide students' priorities and decisions is critical for all who are responsible for helping young people grow up healthy. Schools should make special efforts to implement inservice education programs to ensure that counselors have background in and understanding of the communities and cultures in which students live.

Counselors can provide broad-based intervention programs to promote the health of students. They can initiate individual and small group programs aimed at preventing the onset of mental and emotional health problems, as well as interventions designed to reduce the consequences of stress or rehabilitate those who are experiencing difficulty in coping with stress (Klingman, 1984). These interventions include:

- problem-solving training
- assertiveness training
- life skills training
- peer-led problem-solving groups

- programs to build self-esteem and address loss of control, peer pressure and adolescent rebellion

Many schools employ school psychologists. The role of the psychologist varies from school to school, but much of the school psychologist's time is spent on pyschoeducational evaluation and educational programming for students with special needs. In addition, the school psychologist provides:

- group appraisal of students
- coordination with other pupil personnel workers
- coordination with child- and youth-serving community agencies
- counseling and psychotherapy
- preventive mental health consultation
- participation on curriculum committees
- inservice education
- data collection and research

School counselors and psychologists are important members of the school team who contribute to the healthy development of students. Both counselor and psychologist play an important role in linking schools with families and community health and social service workers and agencies. These resulting partnerships are crucial to creating an environment that supports young people in growing up healthy.

Schoolsite Health Promotion

Health promotion is a combination of educational, organizational and environmental activities designed to stimulate students and staff to establish healthy lifestyles and become better consumers of health services. Like all components in a comprehensive school health program, school-based health promotion is intertwined with and closely linked to the other components.

School leaders should view health promotion as a systems approach that enables the school to bring together the various health-related components to foster a culture that supports healthy development and the practice of healthy lifestyles. Health promotion establishes a social climate with the following characteristics:

- Teachers and family members are encouraged to model healthy behaviors.
- Opportunities are provided for students, faculty and staff, and parents and community members to practice health-promoting behaviors.
- Reinforcement is built in through recognizing and rewarding those who practice healthy behaviors.
- Health services are linked to health instruction.
- Assessment, counseling and, when necessary, referral of students experiencing health-related problems is provided.
- School policies and administrative procedures consistently support the healthy development of youth, teachers and staff.

The documented effects of health promotion programs on staff include increase in energy levels, increased productivity, improved morale, decreased absenteeism and decreased teacher burnout.

Teachers and school staff who model the health knowledge, skills and behaviors learned by students in the classroom encourage students to adopt healthy behaviors. School policies and practices that provide a health-promoting environment free from violence and pressures to engage in self-destructive health behaviors provide an opportunity for students to adopt healthy behaviors.

Providing for the safety of students is only the first step in establishing a health-promoting environment in the school. Schools can provide other health promoting opportunities as well. These include:

- opportunities in the school cafeteria to select food which is low in fat, high in nutrients and prepared in a healthy manner
- a smoke-free environment in which to learn
- opportunities for all students to engage in physical activities that promote cardiovascular fitness, flexibility, strength, coordination, and that can be practiced over the life span

Social values and cultural beliefs and traditions are important determinants of health behavior. The school must reach beyond the schoolyard gate and work with families and communities to understand the cultural aspects of health. Then it can help communities and families develop culturally specific programs that provide health-promoting activities to reinforce those of the school.

The health and social norms of the home and community support or detract from a school's ability to foster the development of healthy youth. Communities that value healthful behavior can send a clear message supporting young people's adoption of healthy behaviors. The following activities can be part of that message:

- modeling healthy behavior
- providing environmental support (such as enforcement of laws against the sale of alcohol to minors)
- having health care providers inquire about and offer counseling regarding healthy behaviors
- providing opportunities for young and old alike to practice health-promoting behavior

The school's role in establishing the health-promotion component includes:

- appointment of a leader
- formation of a school and community health council

- work with the community and families to conceive and articulate a vision for the healthy development of children
- analysis of the current school, community and family environment for health promotion and support of the healthy development of students
- development and implementation of new policies, programs and strategies that fully utilize the resources of the school, community and families to help children grow up healthy

As with all programs, education and training will enhance the success of the school health promotion program. In more than one-half of the states, department of education and department of health leaders offer five-day statewide summer wellness conferences for school teams comprised of administrators, teachers, staff and community leaders.

These teams learn how to incorporate the concept of "wellness as a lifestyle" into their personal and professional lives. When these teams return to their home communities, they have knowledge, skills and commitment to establish health promotion efforts in their schools and communities.

School, Family and Community Health Promotion Partnerships

Smoking, alcohol and other drug use, sexual activity at an early age, violence and abuse, delinquency and school dropout are not school problems. These threats to the future health of youth are interrelated. They share common roots in the community, families and school.

Partnerships to unite schools, families and communities are being established across America to help solve these community-wide problems. These effective collaborative partnerships focus on health promotion and disease prevention. They are the cornerstone of prevention and the foundation upon which children develop to their fullest potential. School officials have a leadership role to play in these collaborative efforts.

Schools and communities cannot ignore the role poverty plays in limiting children's access to health and education and, subsequently, opportunities for success in their adult lives. Appropriate health education for poor children and children of diverse ethnic backgrounds should be devised in consultation with those who represent their culture.

Partnerships formed to support healthy development of children must involve parents from all cultures, business and community leaders representing the diversity of the community, and parents and members of poor communities. To ignore this area will result in social and educational failure for millions of young people. For many, this failure will be the precursor of an adult life of poor health, crime, unemployment, welfare dependency and premature death. This is an unacceptable vision for our children. Coalitions and partnerships driven by mutual aspirations sharing a common vision of healthy young people can effectively help schools meet the needs of youth.

Code Blue: Uniting for Healthier Youth, a report of the National Commission on the Role of the School and the Community in Improving Adolescent Health (1990), issued a call for national action to improve the health of youth. The commission was jointly convened by the National Association of State Boards of Education and the American Medical Association. The report identified all sectors of society as important actors, including:

- individual Americans
- federal and state governments
- local communities
- health and social services communities

- businesses and corporations
- media, entertainment and advertising industries
- churches, youth-serving agencies and other community organizations
- the education community

Recommendations for collaborative action were directed to each of these sectors. Among those recommendations aimed at the education community were the following:

- Education and health are inextricably intertwined. Achieving the educational mission requires attending to the health needs of students.
- Recognize the necessity of working not only with students, but with their families, whatever the composition of such families might be.
- Promote the concept of collaboration within the school and welcome other health professional and service delivery organizations to the school as full partners in working with students.
- Permit sharing of information with collaborating agencies on a need-to-know basis that maintains confidentiality.
- Allow schools to serve as locations for student health care if the local community determines that school sites are the most effective location for providing collaborative services.
- Make school buildings available as sites for recreation, services and other community activities outside school hours.
- Provide all students opportunities to engage in community service.

The commission concluded its recommendations to the educational community by urging education leaders to ensure that teachers are trained in collaborative approaches and given sufficient time to work with other professionals, community members and families.

Collaboration with families requires that schools engage families in the education of their children. This can be done by giving families meaningful roles in school governance, communicating with families about the school program and student progress, and offering families opportunities to support the learning process at home and at school (Carnegie Council on Adolescent Development, 1989). For example, homework assignments that draw on their family's history and experiences or views regarding current health affairs help engage youth and their families with the school.

School Leaders' Steps to Health Program Planning

The following step-by-step approach, outlined in detail in *Step by Step to Comprehensive School Health* (Kane, 1993), walks school leaders through the development of a comprehensive program to support the healthy development of children and youth. The steps include:

- needs assessment
- organization of support and working groups
- goal development
- program status assessment
- resource analysis
- development and implementation of a strategic plan
- evaluation
- a process for monitoring and managing change

The Ad Hoc Advisory Committee

Prior to the planning process, school leaders will need to establish an ad hoc advisory committee. This committee acts as a "cabinet" to assist and advise school leaders in their efforts to initiate planning for the school's comprehensive school health program.

The ad hoc advisory committee advises school leaders during the initial stages of planning; it is discontinued once a Committee for Healthy Students is established. Members of the ad hoc committee should be selected based on the following criteria:

- the school's need for health expertise
- their access to ongoing community initiatives
- their vision of health and education challenges
- their knowledge of and access to school and community organizations
- their visibility and established leadership qualities

The nature of this committee's responsibilities suggests it should have five to eight members. Ideally, membership should include:

- a school board member
- a local or state epidemiologist
- community leaders (church, social, organizational, political)
- teachers and other school leaders

The functions of the committee are as follows:

- Reviews and clarifies the need for a vision of a comprehensive school program that supports healthy development of children.
- Identifies strategies and opportunities for schools, families and communities to come together to develop that vision.
- Advises school leaders on assessing community aspirations.
- Assists school leaders with the epidemiological assessment of the health status of children in the community.
- Advises school leaders regarding the establishment and membership of the Committee for Healthy Students.

Needs assessment includes assessing the aspirations of the community and a thorough review of epidemiologic data regarding the health status and behaviors of children and youth.

Assessment of Community Aspirations

The community's aspirations and perceptions of health needs can be identified by gathering information from:

- students
- parents and family members
- church leaders
- community leaders
- health and social services professionals
- teachers and other school personnel
- supportive community members

Community aspirations and values, when described, should provide a philosophical foundation for establishing the school's comprehensive school health program. Consulting with community members regarding their concerns not only provides valuable input that can guide program development, but is also an important first step in establishing community ownership of the program.

Because each community is different, school leaders will have to determine the most effective methods of working with their community to collect information. Issues related to reading levels, written and spoken language proficiency, cultural differences, and access to decision making need to be considered in this process. School leaders should collect information from all segments of the community to ensure a clear understanding of the community's concerns.

Epidemiologic Data

Identifying, assembling and interpreting epidemiologic data can best be carried out by public health personnel who have a background in and understanding of epidemiology. Including a public health epidemiologist on the ad hoc committee helps ensure that the school's programs consider the latest health and risk-factor data pertinent to school-age children and youth.

There are three types of epidemiologic data school leaders should consider when establishing health program priorities—mortality, morbidity, and risky or unhealthy behaviors.

Mortality (death) data, although a crude measure of health status, will provide school leaders with information regarding the causes of death among children and youth. The leading cause of mortality (death) and morbidity (sickness or injury) among children and youth has been historically mislabeled as "accidents." Use of the term *accident,* which implies a random and uncontrollable event, is widely discouraged by public health leaders. The term suggests that such injuries are not preventable, when in fact, many are. Most automobile crashes, for example, are neither random nor uncontrollable. More than half of all automobile-related deaths involve drivers who have been drinking. High speeds and careless driving account for the large majority of the remainder. School leaders will want to consider injury prevention a high priority in their planning efforts.

Behavioral risk-factor data, a third type of epidemiologic data, quantifies the presence of risky or health-protective behaviors in a population. Many experts consider the presence or absence of health-compromising behaviors or risk factors a more relevant measure of the health status of children and youth than mortality or morbidity.

Identifying behavioral risk factors among school-age youth is an important step in developing educational and preventive interventions. Typical risk factor information will include the incidence, prevalence and age at onset of:

- tobacco use
- alcohol and other drug use
- sexual intercourse

- unprotected sexual intercourse
- nonuse of safety belts
- engagement in violence
- levels of nonexercise
- unhealthy eating patterns

Specific questions that school leaders should ask include:

- What are the leading causes of mortality (deaths) among school-age youth in this community?
- What are the leading causes of morbidity (sickness and injury) among school-age youth in this community?
- What are the unhealthy or risky behaviors of our children and youth that will result in future morbidity and mortality?
- At what age do our youth develop these unhealthy or risky behaviors?

Data sources for mortality, morbidity and risky behaviors include local, state and federal agencies.

A report outlining the community's aspirations for children and youth and the epidemiological factors that influence health should be developed by school leaders. This information will become the boiler plate for the development of the school's comprehensive plan to support the healthy development of children and youth.

Community Awareness Meeting

Once school leaders have completed and digested the community needs assessment and the epidemiologic assessment of the health status of children and youth, an open community forum should be held. This meeting should be planned well in advance. It provides an opportunity for school leaders and community members to discuss the health of children and youth and ways for schools, families and the community to work together to promote healthy development. The awareness meeting can strengthen the commitment of the community to support development of school-based programs to foster healthy development of children and youth.

The Committee for Healthy Students

A Committee for Healthy Students, responsible for securing broad-based community support and input for the comprehensive school health program, should be established following the community awareness meeting. The committee membership needs to be broad enough to represent the various organizations and agencies with an interest in the healthy development of youth. Every attempt should be made to include individuals who can represent an organization's unique perspective, but can forgo the organization's individual agenda in favor of the broad agenda of establishing a systematic and comprehensive school health program.

A Shared Vision Statement

An important early step to the success of your community's efforts to provide a school program that promotes the development of healthy youth is to develop a vision for the program. Students, parents, community leaders and school personnel should all contribute to the development of this vision statement. Once developed, the vision statement needs to have high visibility in the community and in all activities related to the school's program.

There are three types of information that the Committee for Healthy Students needs to consider in the process of developing a vision statement:

- the community's aspirations and perceptions of the health needs of its children and youth
- epidemiological data about the health status and risk behaviors of children and youth

- information regarding proven methods for helping children and youth develop in healthy ways

Working Groups

School leaders will want to establish working groups charged with developing the school program to promote the health of children and youth. One efficient approach is to establish a working group responsible for each of the eight areas that contribute to the healthy development of students, as identified by Allensworth and Kolbe (1987).

Each working group will take responsibility for shaping one component of the school program so that it fosters healthy development of children and youth. Each working group will also be responsible for ensuring that its component fits with other components to constitute a comprehensive program.

Responsibilities of the working groups include:

- identifying and prioritizing new program needs
- developing program goals and objectives
- conducting resource assessment
- developing and presenting reports to the Committee for Healthy Students

The Strategic Plan

Reports from each of the working groups should be received and reviewed by the Committee for Healthy Students. This committee is responsible for developing a strategic plan that brings the eight components of the school together into a comprehensive health plan. The plan should include overall goals to be achieved over a five-year period and specific activities, tasks and outcomes for the coming two years. This plan provides a comprehensive approach for the school's efforts to foster the healthy development of children and youth. The strategic plan should include:

- long-range goals
- short-range objectives
- activities
- materials and resources needed
- staff responsible for implementation
- timeline for implementation of activities
- a framework for evaluating activities and outcomes

Presentation to the Board of Education

The strategic plan is presented to the school board of education along with the request for additional resources. The school district's board of education has the ultimate responsibility and power to make programmatic and funding decisions to support programs for healthy development of children and youth. The school board establishes the priorities and identifies the funding necessary to implement a program. The Committee for Healthy Students has the responsibility of advising the board of education.

The presentation to the board of education should include:

- the community's aspirations for its children and youth
- the needs of the community's children and youth
- the vision for healthy children and youth
- the goals and objectives of the comprehensive school health program
- the proposed plans for meeting the health needs of students
- the request for resources needed to carry out the plan

Annual Reviews

The Committee for Healthy Students should meet annually with working groups to review the status of all past-year activities and to reestablish the strategic plan for the upcoming year. Working groups for the eight areas should be responsible for reviewing and making adjustments to the following items:

- vision statement
- identified needs
- priorities assigned to each need
- activities and programs implemented in the previous year

In addition, each working group is responsible for identifying priorities, outlining activities and programs, and identifying resources available and resources needed for the coming year. The reports of each working group are annually presented to the Committee for Healthy Students for action. Every two years, the Committee for Healthy Students needs to reestablish the five-year plan for the comprehensive school health program.

Evaluation

Evaluating the health program once it is established is important for several reasons. Thoughtfully designed evaluation strategies will provide data about daily activities, management, strategies, learning experiences and community involvement (process evaluation); data about the health knowledge, skills and behaviors of children and youth (impact evaluation); and data about longitudinal changes in health status indicators (outcome evaluation).

Process evaluation should be ongoing. The data collected should be continually reviewed and used to improve existing programs. Process evaluation data is most useful to those directly involved in delivery of educational programs, services, counseling, and those involved in the day-to-day operations of the school.

Impact evaluation collects data that measures the program's effectiveness in producing gains in knowledge and achievement in the health behaviors targeted by the program. School leaders should conduct an annual review of impact evaluation data. This review should guide planning for the upcoming years.

Outcome evaluation attempts to measure changes in health status over periods of time—usually years. Improved health status outcomes are an intended goal of health education and health promotion programs. They are an indicator of the success of school and community efforts to foster healthy development of children and youth. These changes can only be measured by careful, longitudinal analysis of health status data. Although longitudinal data is very abstract, school leaders need to understand the importance of small changes in health status indicators. For example, a community that can prevent ten unintended teenage pregnancies has actually saved hundreds of thousands of dollars and provided ten young women the opportunity to continue with their schooling and develop to their fullest potential.

Process, impact and outcome evaluation strategies need to be built into the health education program plan from the beginning.

Implementation of the Plan

The Committee for Healthy Students and the working groups provide excellent and appropriate opportunities to involve community members in identifying aspirations and developing the vision, goals, objectives and plan for the comprehensive school health program. However, school leaders know that committees are not viable mechanisms for implementing plans that establish systematic programs.

Implementation of activities and programs to support the healthy growth and development of children and youth are the responsibility of teachers and other school personnel. A clear blueprint that identifies each program goal and the objectives and activities related to that goal must be established.

A numbering system that allows for easy reference should be used to identify each activity. Figure 2 shows a sample blueprint. In this example, Goal 3, Objective 1, Activity 1 is written as 3.1.1.

Figure 2

Sample Blueprint

Goal 3: Involve all students in daily fitness activities which promote healthy physical development.

Objective 3.1: Provide all teachers in grades 1-6 with necessary knowledge and skills to provide daily fitness activities for children and youth.

Activity 3.1.1: Review the literature to determine knowledge and skills needed by teachers to implement appropriate fitness programs for school-age children and youth.

Individual(s) Responsible: Assistant Superintendent will contract with consultant

Materials and Resources Needed:

- Literature reviews of school-based fitness programs
- Evaluation studies of fitness programs
- Expert consultant(s)

Activity 3.1.2: Develop inservice training modules designed to enable all teachers to provide daily fitness activities for children and youth. Develop process and impact evaluation instruments.

Individual(s) Responsible: District Coordinator for Physical Education

Materials and Resources Needed:

- Examples of other training modules
- Example evaluation instruments
- Materials to provide learning experiences (videos, guides, equipment)

Activity 3.1.3: Secure faculty to conduct inservice training of teachers.

Individual(s) Responsible: District Curriculum Coordinator

Materials and Resources Needed:

- Listing of fitness experts in local community, university, state

Activity 3.1.4: Secure facilities and schedule inservice training sessions.

Individual(s) Responsible: Secretary for District Curriculum Coordinator

Materials and Resources Needed:

Figure 2 (continued)

- Schedule of events and sites planned for the school year
- Listing of possible facilities and contact person and telephone number to reserve those rooms

Activity 3.1.5: Develop and circulate announcements of inservice education for all teachers.

Individual(s) Responsible: District Curriculum Coordinator

Materials and Resources Needed:

- Completed announcement
- Listing of all teachers and addresses

Activity 3.1.6: Conduct first inservice education session for teachers.

Individual(s) Responsible: Consultants

Materials and Resources Needed:

- Equipment: overhead projector; VCR
- Facilities: exercise mats

Activity 3.1.7: Review evaluation data. Modify the inservice based on the evaluation results.

The blueprint includes the following items:

- goals
- specific objectives
- activities
- individual(s) responsible
- materials and resources

Figure 3 shows a sample implementation timeline for the blueprint.

The Goals of Comprehensive School Health

Properly designed school-based health education programs help children and youth acquire the necessary awareness, knowledge

Figure 3

Sample Timeline

Activity	Individual(s) responsible	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
3.1.1	**Assistant Superintendent/ Consultant**	X	—	X							
3.1.2	**District Coordinator for Physical Education**			X	—	X					
3.1.3	**District Curriculum Coordinator**				X—	X					
3.1.4	**Secretary for District Curriculum Coordinator**					X					
3.1.5	**District Curriculum Coordinator**						X				
3.1.6	**Consultants**							X			
3.1.7	**Consultants**								X	—	X

and health-related skills, and provide opportunities within the classroom and school for students to practice healthy behaviors. Quality school programs also recognize that the family and community play an important role in students' learning and provide wider opportunities to practice and reinforce healthy behaviors. School health education programs committed to working with families and communities to provide health education, health and social services, and an environment that promotes and rewards healthy behaviors will be an important step in supporting the healthy development of children and youth. This is the goal of comprehensive school health efforts.

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Chapter 5

Instructional Planning for Health Education

Evelyn E. Ames, PhD, CHES

The classroom can be an exciting, stimulating and thought-provoking environment in which to promote health behaviors and attitudes and impart accurate knowledge for the purpose of promoting healthy lifestyles and preventing disease. Teaching personal and social health competencies and health-enhancing skills to young people cannot be left to chance or to the teachable moment.

> Childhood is the prime time of human development. This is no less true for development of good health than it is for social, educational, emotional, and moral development. It may be easier to prevent the initiation of some behaviors, such as smoking and alcohol and drug abuse, than to intervene once they have become established. Likewise, it may be easier to establish healthful habits, such as those related to

> basic hygiene and those related to dietary and physical activity patterns, during childhood than later in life. Childhood is the opportune period for such healthy development. (U.S. Department of Health and Human Services, 1992a)

Studies document that significant and preventable health problems and risk-taking behaviors that pose serious health risks for young people can be addressed through effectively planned and implemented comprehensive school health education (Louis Harris and Associates, 1988; American School Health Association, 1989). Health-related behaviors and lifestyles established during young people's formative years have a direct effect on their lives as adults.

A comprehensive K-12 school health instruction program is the logical and effective way to ensure that children's health needs and interests are met at the appropriate developmental stages of growth. A sequenced program that reflects the process of health education and is based upon the growth and developmental characteristics of children and youth can reduce or eliminate the frustration caused by trying to deal with the multiple health concerns facing young people in a "one-shot" approach (what health educators call the "disease-of-the-month syndrome"). Proponents of the comprehensive approach point to research that indicates that "children who have repeated exposures to key topics at different stages in their education form attitudes that help them avoid bad health habits when they are older" (Pine, 1985).

The philosophy, goals and curriculum objectives of a school district's health education program give direction to the development of lesson objectives; the selection of teaching strategies, resources and materials; and the development of student outcome assessment procedures. Those planning the instructional curriculum need to know the definitions of the field and process, the philosophy, and the content of health education. They also need to understand the following:

- the school district's philosophy and goals
- what health curricula are available or mandated
- what resources and teaching aids are available
- who the students are (i.e., their needs, the community values, their developmental characteristics)
- how students influence the planning of instruction
- what good teaching entails or what students' perception of good teaching is
- topics taught in other subject areas that relate to health education

Understanding all of these factors requires considerable time, effort and thought. It requires leadership from individuals with expertise in health education who have a detailed understanding of the health needs and interests of young people. These leaders must be familiar with both the field and process of health education.

The field of health education is defined as "that multidisciplinary practice, which is concerned with designing, implementing, and evaluating educational programs that enable individuals, families, groups, organizations, and communities to play active roles in achieving, protecting, and sustaining health." The process of health education is defined as "that continuum of learning which enables people, as individuals and as members of social structures, to voluntarily make decisions, modify behaviors, and change social conditions in ways which are health enhancing" (Association for the Advancement of Health Education, 1991).

Establishing the Basis for Content Selection

All dimensions of the individual—physical, mental, emotional, social and spiritual—are integrated into health topics and issues of a K-12 comprehensive program. Selection of content is oriented to the skills, knowledge and attitudes that contribute to the development of healthy lifestyles and promote a sense of well-being. Relevant and necessary content focuses on preventable health problems of children and youth such as intentional and unintentional injuries, substance use, sexually transmitted disease, low self-esteem and physical inactivity.

Determining Content

Individuals appointed to determine content (subject matter) of the school health curriculum should first expand their horizons as to what the content of health education could be. The next step is to narrow the identified content so that it adheres to the school district's philosophy and goals and fits within the curriculum time frame. Professionals in the field of health education suggest that comprehensive school health instruction includes, but is not limited to, ten major content areas: community health, consumer health, environmental health, family life, mental and emotional health, injury prevention and safety, nutrition, personal health, prevention and control of disease, and substance use and abuse (Association for the Advancement of Health Education, 1991).

Some teachers may opt to change these headings to reflect more closely their school district's health education curriculum. For example, elementary teachers involved in developing a health education scope and sequence for kindergarten through grade five for the Bellingham Public School District in Washington chose to make the following changes:

- broaden family life to family life/social skills

- narrow mental and emotional health to emotional health
- combine prevention and control of disease and personal health to form personal care/disease prevention and control
- list growth and development as a separate content area

In regard to the family life heading, teachers said they focused on social skills when teaching family relationships and felt the combined heading more adequately reflected what they taught in their classrooms (Ames and Sherwood, 1992).

Instructional planners need to know what subject matter falls within the rubric of school health instruction. Descriptions of subject matter within the ten major content areas are found in various state health education frameworks and health education texts. For example, descriptors of the minimum knowledge for the area of substance use and abuse in one state's framework are "personal goals, individual responsibility, substances beneficial to mankind, classifications of substances and their effects on the body, implications of use of substances, how habits are formed and influence health, use and misuse of tobacco, alcohol and other drugs, treatment and rehabilitation programs, respect for self and others" (Ames et al., 1992). But planners should keep in mind that "there should be no hard and fast rule for organizing topics into health areas; in any curriculum, placement of a topic under a particular health area is arbitrary. Discussion, for instance, of non-prescription drugs could be included when studying drugs, disease control, consumer health, or safety" (Trucano, 1984).

Student Interests

Another basis for selecting content is to look at the interests of young people. Two well-known studies, *Teach Us What We Want to Know* (Byler, Lewis and Totman, 1969) and *Students Speak* (Trucano, 1984), revealed what students said were their health interests. For each grade level, students indicated what health topics interested them, what their perceptions of the value of health education were, and how they wanted to be taught.

In the Trucano study, students expressed interest in learning about "fears and worries" at all grade levels. There was a high interest in learning about drugs at all grade levels; and almost all grade levels mentioned divorce. Students also wanted to be involved in the learning process and to be taught by competent teachers.

A later study of adolescents by Louis Harris and Associates (1988) provided data that showed which health topics from a list of eleven were very important to students. Of the adolescents surveyed, 75 percent rated not taking or experimenting with drugs as very important, 68 percent rated not smoking cigarettes very important, and 60 percent rated not being overweight very important.

Student Health Needs

Content selection is also based upon what students know and believe about health (their knowledge and attitudes) and what health behaviors they practice or do not practice. There are many sources of data about students' health knowledge, behaviors and attitudes, including the following:

- government agencies such as the Centers for Disease Control and Prevention (CDC), in particular the National Center for Chronic Disease Prevention and Health Promotion and its Division of Adolescent and School Health
- state departments of education and health
- school districts
- community agencies and organizations
- private foundations

The CDC's 1990 *Youth Risk Behavior Survey* contains a wealth of information about adolescents' health behaviors relating to intentional and unintentional injuries, tobacco use, alcohol and other drug use, sexual behaviors and dietary behaviors. (See box.)

Youth Risk Behavior Survey

Motor vehicle crashes account for 31 percent of the causes of death among 1 to 24 year olds.

Nearly half of all deaths from motor vehicle crashes among students in grades nine through twelve involve alcohol.

Homicide accounts for 13 percent of the deaths among this age group.

Suicide rates for adolescents ages 15 to 19 have quadrupled from 1950 to 1988.

Approximately 86 percent of all sexually transmitted diseases occur among persons ages 15 to 29.

Only 37 percent of students in grades nine through twelve report being vigorously active, with physical activity being significantly less common among females and African-American students (U.S. Department of Health and Human Services, 1992b).

The 1987 *National Children and Youth Fitness Study II* identified physical activity needs of young children. The study found the health-related fitness of young children to be significantly associated with the physical activity behaviors of the children themselves and their parents. Today, young children weigh more and have more body fat than they did twenty years ago. They eat more while they watch television; they also eat more of the foods they see advertised on television. The average child in grades one through four spends two hours, two minutes watching television on school days and three hours, twenty-six minutes watching television on the weekends (U.S. Department of Health and Human Services, 1987).

Community and Societal Needs

Instructional planners must also examine community and societal needs. Information about community needs can be obtained by contacting local health-related organizations, health care providers, public health departments, youth and social service organizations, and religious groups. For societal needs, an excellent place to start is a review of the *Healthy People 2000* Summary Report. This government document provides a database targeting important health issues. Approximately 33 percent of the year 2000 objectives focus on school-age children and youth. Attainment of these objectives relies substantially on improvements in comprehensive school health education.

Other national sources are the Children's Defense Fund, which provides useful data about health problems of American youth, and two frequently cited documents, *Code Blue: Uniting for Healthier Youth* (National Commission on the Role of the School and the Community in Improving Adolescent Health, 1990) and *Turning Points* (Carnegie Council on Adolescent Development, 1989), which target adolescents. The Children's Defense Fund's 1990 report indicates that every 47 seconds an American child is abused or neglected; every 67 seconds an American teenager has a baby; and every seven minutes an American child is arrested for a drug offense.

Special Concerns

Instructional planners need to reflect upon the special concerns that affect health instruction and be cognizant that planning for health education may differ from planning for other subject areas. Parental, community and religious values can be antagonistic or supportive forces that drive the curriculum. Legislative mandates influence not only health content but at which grade level certain topics are to be taught. For example, most states have legislated

HIV/AIDS prevention education to be taught at specific grade levels.

Therefore, the selection of health content is guided not only by the health needs and interests of young people, but by a school district's philosophy and goals, state legislative mandates, parental and community values, and research about young people's behaviors and health status.

Narrowing the Scope of Health Education

Needless to say, not all major content areas and identified health topics and issues can be taught every year or at every grade level. The scope of health content needs to be narrowed before proceeding in the sequencing of selected content. The process of narrowing the scope (i.e., the range of health topics that could or should be taught at each grade level) can be facilitated through the use of agreed-upon criteria (Ames et al., 1992). Pertinent questions to ask when narrowing the scope include:

- Are topics and skills consistent with the philosophy and goals that have been established?
- How important is the health topic in relation to the health needs of the target population?
- Is the topic relevant to the specific characteristics and needs of the identified population?
- What is the relative importance and urgency of the health topic to society?
- Is the topic of a high level of interest to the learners?
- Can one distinguish between unnecessary repetition and desirable reinforcement?

A curriculum committee with representation of teachers from each grade level (including those from combined grades), school support staff, parents and community health care providers can provide answers to these questions.

Sequencing Health Content

Sequencing means that health topics are arranged at various grade levels in such a way as to meet the developmental needs and interests of young people. The many topics and issues the health education curriculum planning committee identifies as necessary and relevant need to be sequenced and placed at appropriate grade levels. This arrangement of topics and issues at particular grade levels must meet the developmental growth patterns, health needs and interests of students, and impart the related desired health knowledge, attitudes and practices, as well as meet the needs of the school district, parents and community.

Keep in mind that health topics are placed at various grade levels not only to introduce new issues but also to review and reinforce what students have previously been taught. Curriculum and lesson objectives are developed to encourage students to build on their prior knowledge. Sequencing encourages the consideration of different aspects of a health topic and the application of acquired knowledge to new situations. Some health topics will be of interest to students at all grade levels, but different aspects of these topics will be studied at different age levels (Ames et al., 1992).

Sequencing is determined by the developmental growth patterns of children and youth as well as societal needs, family needs, individual needs and current events. Instructional planners, therefore, must be knowledgeable about the physiological and psychosocial developmental characteristics of children and youth.

For example, early adolescents undergo vast and rapid physical changes. Young adolescent females are reaching menarche and subsequent fertility at earlier ages than ever before. Young females are maturing physiologically, from the standpoint of being able to become pregnant, at age 12, 13 or 14, but have yet to reach the equivalent maturity in their psycho-social development, especially when it comes to decision-making skills. And what about young males? They have not changed much in respect to the onset of puberty during the past several decades. The implications of this are very interesting. Who are the young females dating? What is happening to same-age males in respect to dating patterns? What decision-making skills should these young people be practicing?

Understanding these changes and differences is essential to effective sequencing of sexuality education subject matter. Those planning health instruction must wisely select health content, lesson objectives and student outcomes, teaching strategies, resources and evaluation procedures that effectively address the changing developmental needs of youth.

The following example illustrates the relationship of developmental characteristics to desired health knowledge, attitudes or behaviors. Young people ages 12 to 15 are described as being "ambivalent between independence and need for adults; self-identity strong at times to a point of rebellion." If one of the goals of a school district's health education program is to educate students to practice behaviors that promote and maintain mental health, then the desired health knowledge, attitudes or behaviors corresponding to these developmental characteristics would be that the student "strengthens self-concept and self-understanding; explores effect of selected situations; assesses own feelings about selected risk behavior" (Ames et al., 1992).

This example illustrates the need for instructional planners to review growth and developmental characteristics of each age group and relate these to the health knowledge, attitudes and behaviors desired for young people. As a further illustration of this relationship, it is known that young people ages 9 to 12 are "concerned with differences in growth patterns; may be embarrassed about their own and others' physical development." If a second health education goal of the school district is to educate the students about patterns of healthy growth and development, then the desired health knowledge, attitudes and behaviors would focus on students understanding the normalcy of differences in growth patterns and cycles (Ames et al., 1992).

Planning Lessons and Selecting Methodology

Planning lessons is like serving a full-course meal. Certain ingredients are requisite for the completion of a successful learning activity in health education. The lesson is a plan a teacher follows to facilitate the process of learning so particular student outcomes are accomplished.

> Lesson plans are step-by-step procedures the teacher will follow to assist students in meeting the lesson objective(s). Lessons can last fifteen minutes or continue over several days. Lessons include lesson objectives (what is to be learned), generally an introductory activity (to develop interest and/or to explain what will be expected of the students), the actual learning experience (what the students will be doing to achieve the objective), resources needed, and (if a lesson is evaluated by itself rather than as part of a unit) what evaluation will be used. (Ames et al., 1992)

Planning instructional lessons requires determining how many minutes and hours (especially at the elementary grade level) or days (more likely at the secondary level) teachers have to teach health. It requires selecting curriculum objectives that address the school district's curriculum goals for health education. These are grade-specific objectives written for instructional planning that provide direction for deciding what learning activities and materials are to be used in a particular lesson or course of instruction. It also requires choosing a variety of teaching strategies to enable teachers to meet different student learning styles and elicit student enthusiasm.

Lesson objectives need to be written for the selected teaching strategies. Lesson objectives define what students will be able to do, know or feel after completing a particular lesson. Planning lessons also requires a school district to obtain materials that will assist teachers in accomplishing their lessons and in preparing evaluation procedures by which student outcomes can be assessed.

The basis for selecting teaching strategies is related to the following:

- the characteristics of the students
- the comfort level of the teacher in using a particular method
- the availability of teaching materials and resources
- the adaptability of the strategy to the teaching center
- the time it takes to complete the strategy
- the hands-on involvement of students

Whatever the basis, ultimately the strategy should accomplish the lesson objective.

It is a challenging task to find appropriate and usable resources for teaching health lessons. A considerable number of resources are available from nonprofit and for-profit businesses and organizations, as well as governmental agencies. All resources need to be evaluated for their usefulness. When choosing resources, be sure the content is accurate, current and complete, and free from racial, ethnic, sex, age, disability and cultural bias. Resources need to be age-appropriate and interesting to young people, have instructional merit, and meet the district's philosophical point of view. They should address stated curriculum objectives and goals, be realistic in cost, and pose little or no difficulty in use by teachers and students (Ames et al., 1992).

Special Concerns When Planning Health Instruction

The subject matter of health education encompasses many things that are a part of everyday life; the issues it addresses focus on immediate and future personal health needs and interests. These issues are personal and arise out of values; therefore, parents, young people, community members, religious leaders and school administrators have strong feelings and opinions about what should or should not be taught to children and youth. Whether the teacher presents one viewpoint or allows for many, teaching about human sexuality, substance use and abuse, self-image, risk-taking behaviors, nutrition, health care practitioners, values, emotional well-being, family relationships and a host of other health-related topics has the potential to create controversy.

Students who want to search out facts, evaluate the information and learn how to make the "right" decisions will be heavily influenced by the values they bring with them from their own homes. This means that students will not all make the same decisions. Creating a classroom environment that allows various viewpoints to be expressed is basic to a democracy. Education that teaches critical thinking and good decision making is requisite for such a democratic classroom.

An awareness and understanding of the people and organizations who can influence health education is crucial. The school board, school district and building administrators, teachers, health education coordinators, school support staff, students and parents influence the curriculum. Other key players include community members, religious leaders, health care providers and agencies, public health officials, state lawmakers, and departments of education. Both teachers and administrators must be aware of issues that could polarize the community. Therefore, it is wise to adopt policies and procedures for governing the treatment of sensitive and controversial health issues in the classroom.

As previously mentioned, planning for health instruction may differ from planning instruction for other curricular areas. For one thing, health education, as yet, is not an entrenched subject within the total school curriculum as are math, science and English. This results in fewer comprehensive curricula and resources being available in the district's curriculum library. For another, fewer teachers are professionally prepared in health education when compared to the number prepared in other teaching areas. Health education is less likely to be part of university and college teacher preparation core requirements. Following graduation, when teachers are assigned to teach health, they require more inservice training about curricula, content and pedagogical skills needed to teach health. "No matter how inclusive, enriched, and updated the curriculum is, it has little value if the delivery or the instructional method to teach the concepts, skills, and information is not effective. Teaching students involves more than just reaching them" (Klavas, 1991).

For a curriculum to be carried out as planned, inservice training of teachers is crucial. Such training gives teachers a clear understanding of the expectations related to the health education curriculum and helps them buy into the program. (See Chapter 28 for more information on inservice training.) Those who do teacher inservice training should be cognizant of factors that can contribute to successful programs. A two-year project in which 56 elementary teachers received inservice training and mentoring in comprehensive school health education identified several key factors that contributed to a highly successful inservicing and mentoring program (Ames and Sherwood, 1992). These factors include:

- Project staff respect and value teachers.
- Speakers are credible and enthusiastic.
- Workshops meet teacher needs based on needs assessments and site visits.
- A safe climate for open discussion is created.
- The training atmosphere is upbeat, with music and humor incorporated daily.
- Strategies encourage team bonding.
- Background information substantiates health teaching.
- Practical lesson ideas are presented.
- Grade-appropriate strategies are emphasized.
- Time is allotted for processing and debriefing information.
- Activities are highly interactive and student-centered.
- There is time in class for participants to make and take materials for classroom use and to plan school year activities.
- The inservice schedule accommodates teachers' needs.
- Incentives and teaching materials are provided.
- Basic creature comforts are met and good food is provided.
- Facility for instruction is spacious and accommodating, with convenient parking provided.

Inservice programs organized to update and prepare teachers to teach health education frequently target categorical curricula and methodology pertaining to the specific curricula. Inservice seldom focuses on comprehensive school health instruction. Usually omitted is education about students' health needs and interests; their developmental characteristics and the corresponding desired health knowledge, attitudes and practices; and an operational definition of comprehensive school health instruction.

Health education is often integrated or infused into other teaching areas such as science and social studies. Curriculum coordinators may mistakenly believe this to be an effective means of educating youth about health. Rather than establishing separate health classes at the middle and secondary levels, health education is "inserted" into other classes for a few days or weeks. A common saying is that when health instruction becomes everybody's business, it generally becomes nobody's business!

The problem with this "one-way street" philosophy is that it leads nowhere. There should be two-way streets, or better yet, several streets (i.e., curricular areas) converging to tackle societal and student health issues. Teachers of three, four or five curricular areas (e.g., math, science, social studies, health and English) could work together to focus on a specific health issue, such as environmental pollution, for one or two weeks. A team approach to health instruction could bring life to learning. "Where possible, curriculum delivery systems with similar learner outcomes should be integrated and coordinated to form a better instructional program" (Wisconsin Department of Public Instruction, 1992). Making connections among curricular areas should be given high priority as schools move toward the twenty-first century. These connections require a concerted effort by teachers and administrators.

Preparing Teachers to Teach Health Education

Implementation of comprehensive school health instruction is hampered by inadequately prepared teachers. Poorly prepared teachers and a lack of interest by staff assigned to teach health have been documented by national studies to be critical contributing factors as to why quality school health education programs have not become a reality for more than 25 years (Coalition of National Health Education Organizations, 1990).

Teachers' awareness of the importance of a healthy classroom and how this contributes to the well-being of students must be increased. What teachers say and do can have a lasting impact on students. Creating a healthy classroom constitutes a vital ingredient in the recipe for being an effective and successful teacher. Understanding the learning process and professional preparation are important as well.

Understanding the Learning Process

Master teachers know that individuals learn in different ways. Therefore, a variety of teaching strategies and learning experiences must be chosen to meet the needs of those who learn best through reading or hearing or seeing or doing, or through a mix of these learning modes. The more teachers involve students in the learning process and the more actively students' five senses are involved, the more learning will take place.

Master teachers know that students differ in their learning styles, i.e., the way they concentrate on, process and retain new and difficult information. Learning style is defined as a combination of many variables, including physical, environmental, emotional, psychological and sociological stimuli. Some students process information analytically, in a step-by-step sequential pattern that builds toward a conceptual understanding. Other students, global learners, learn by understanding the concept first and then by concentrating on the details.

> Many analytics tend to prefer learning in a quiet, well-illuminated, informal setting; they often have a strong emotional need to complete the tasks they are

> working on, and they rarely eat, drink, smoke, chew, or bite on objects *while* learning. Conversely, globals appear to work with what teachers describe as distractors; they concentrate better with sound (music or background talking), soft lighting, an informal seating arrangement, and some form of intake. In addition, globals take frequent breaks while studying and often prefer to work on several tasks simultaneously. (Dunn, 1989)

Master teachers know that there is a period of readiness for learning. Involving young people in planning learning activities and in carrying out projects will assist teachers in determining their students' readiness to learn. Master teachers also know that when children feel success, they are motivated to learn. Children continue to be productive if they experience such feelings. Therefore, it is necessary for teachers to set short-term, realistic goals that make success an obvious element. Students can also help set classroom goals. The more students apply the learning to their own interests, values and needs, the more interesting the learning and the more permanent the application will be (Ames et al., 1992).

Professional Preparation

Until such time as universities and colleges and education accrediting bodies deem it relevant to require course work in instructional methods in health education as part of the core requirements for all elementary education majors, health education will be poorly taught in the elementary grades. The route to improvement in secondary health instruction is preservice professional preparation in an academic major in health education. The program major should meet the accrediting standards of AAHE/NCATE (Association for the Advancement of Health Education/National Council on Accreditation of Teacher Education). Additionally, all teacher education majors, both elementary and secondary, should be educated in ways to enhance their own lifestyle behaviors. Healthy role modeling by teachers does have an impact on students. (See Chapter 27 for more information on preservice education.)

Whether teacher preparation is preservice or inservice, a guiding light is provided by what students have to say about teachers who teach health. When asked what they thought teachers should do and know when teaching health (Trucano, 1984), students said teachers should:

- "Be prepared—know what they are talking about."
- "Teach the things involving our life now and in the future."
- "Talk to us and tell us things of health so we can understand instead of just reading it out of the book."
- "Be knowledgeable; have a clue; be competent."
- "Go more into the subject. Talk about every little thing a body does and how it works and how it stops working, and then use a model and point to every part of the body."
- "I would like teachers to be well educated for the area they teach."

Special Concerns for Elementary Teachers

A typical comment of the elementary teacher is, "I don't teach health! I don't have time to teach another subject. The curriculum is already too crowded." In reality, however, elementary teachers *do* teach health—they just don't recognize that they do! Visit an elementary classroom on any given day and look at the bulletin boards. Ask to see student activities that focus on self-esteem, relationships, injury prevention, nutrition, and growth and development. Health education is happening, but often the elementary teacher is not aware of it until it is pointed out. Elementary teachers participating in a project to enhance and update their pedagogical skills and strategies and increase their comfort level for teaching health were astonished to find that health education is central to much of what they do on a daily basis. Elementary teachers are truly concerned with the health and well-being of their students.

Elementary school health instruction can be strengthened by showing teachers how to connect lesson objectives and subject matter content among various disciplines. The Wisconsin curriculum supplement *Healthy Kids* suggests the coordination and management of people, time and resources to achieve curriculum goals and student objectives that are mutually beneficial and interrelated. The focus is on establishing "models of specific content area integration at the elementary level which can be simultaneously achieved through a coordinated, integrated approach toward classroom instruction" (Wisconsin Department of Public Instruction, 1992). Health instruction at the elementary grade level also can be strengthened by helping teachers feel more comfortable about teaching health and be more knowledgeable about their own health behaviors.

Requirements for Instructional Planning

Planning comprehensive school health instruction requires an understanding and knowledge of the health needs, interests and developmental characteristics (growth and development patterns) of young people. Health needs and interests define the health content of the curriculum; developmental characteristics define the age-appropriateness of content and materials and the methodology used to educate young people about health. Those planning the instructional program must know the field of health education and its content and philosophy, what good teaching entails, what curricula and resources are available, why a variety of teaching strategies need to be selected, why individuality must be remembered when evaluating student outcomes, and how developmental characteristics direct the selection of content, objectives and learning experiences.

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Chapter 6

The Importance of a Healthy School Environment

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Traditionally, the school environment has been viewed as a basic ingredient for education. Much attention has been given to the planning, construction and maintenance of the physical plant of the school. However, traditional views of the school environment can be broadened by looking at the school as a web of interdependent and interacting components. These components include the physical plant, emotional tone and social climate. All of these factors are important for achieving educational goals as well as conserving scarce human and material resources at the school.

The broadened concept of the school environment as key to the formation and reinforcement of healthy behavior places greater demands on school personnel. Yet by putting this idea into practice, school personnel may be healthier and happier in their work and may be able to offer opportunities for their students to obtain more from their education.

The Importance of the School Environment

Millions of students, teachers, administrators and staff spend their working days at schools throughout the United States. Thousands of public and private schools are found in all parts of the nation—urban, suburban and rural. Schools are highly diverse organizational units, from private schools, one-school rural districts, elementary or secondary school districts to huge, urban, unified districts containing hundreds of thousands of students. While school is one of our most common shared experiences, each school contains a unique blend of physical, social and emotional elements that create its character and help to shape the teaching/learning process and educational outcomes.

Much attention is paid to teaching and learning in schools and how these things are assessed and improved. Local, state and national attention is given to observations, analyses and recommendations for changing and improving our schools. Educational reform and restructuring proposals have dominated the nation's attention in the 1980s and into the 1990s, with the intent of helping our schools to better prepare children and youth for responsible adulthood in our society. Rarely have these proposals looked upon the school as a worksite, both for students and for those responsible for the education, health and safety of students.

Education at all levels is a labor-intensive endeavor. The quality of the teaching/learning process is determined by the skills and knowledge of those responsible for education. The outcomes of education are dependent upon the willingness and ability of learners to participate in the educational process. The location and physical facilities of the school, its learning resources, support services, staff and administrators are the underpinnings of teaching and learning; they influence the outcomes of the process.

The school's physical facilities, once constructed and equipped, are difficult to change without substantial capital improvements. As population patterns change, some schools lose their student populations as other schools become overwhelmed with students. Unfortunately, schools can't easily be moved once built. Through time and use, essential equipment becomes dated or worn. The necessary replacements may entail significant financial investment to modify the school's physical plant.

Teaching resources are particularly subject to change as evolving technology and knowledge become translated into new teaching resources. Decisions to adopt one or more new instructional programs are involved and are often quite costly. Related equipment, such as computers, may be required to fully adopt new resources.

These conditions and decisions are familiar challenges to educators; they are part of the nature of K-12 education. What may be less understood is the effect of the social and emotional as well as the physical school environment on students and school personnel. Educational progress of students is affected by their health status; it affects their ability and willingness to learn. Educational effectiveness of school personnel is affected by their health status; it affects their ability to carry out their responsibilities. The health status of both groups can be maintained, protected and improved by conscientious efforts to recognize and support opportunities for health promotion at the school.

A major reason for addressing the school environment as a means for school improvement is the evolving concept of health as applied to the school. Most of us are familiar with particular health concerns affecting children and youth, including the following:

- communicable and noncommunicable disease
- intentional and unintentional injury
- hearing, vision and ambulatory limitations

- premature sexual behavior and pregnancies
- sexually transmitted disease, including HIV and AIDS
- alcohol and other drug dependencies
- behavioral problems

Each of these concerns is well described in popular and scientific media. What has been missing has been the development and implementation of concepts that can help educators link these issues and concerns together.

In the last several years, an evolution of thought has begun to crystallize and shape approaches to these numerous health concerns. The perspective presented here is that health for all in our schools and educational processes are inseparable. Students cannot properly learn if they have health difficulties. Similarly, teachers and other school personnel cannot be effective if they, too, have obstacles to health.

Palpable but often intangible factors such as the emotional or social climate can support or undermine educational objectives. Schools are total experiences for students and staff alike—what occurs in and out of the classroom forms a seamless background that helps shape the well-being of all.

Schools' Basic Responsibilities for Health

Aside from recent developments in our understanding of environmental influences on learning, there is no question that schools have basic responsibilities for protecting and promoting the health and safety of all who go to school, including teachers, administrators and staff. Schools consist of not only the physical plant and grounds that make them identifiable as schools, but also the facilities, equipment, books, curricular materials, consumable supplies and the people occupying the physical plant. The responsibility to protect health begins at the onset when new schools are planned and continues until the school no longer is used for education.

As a legal and ethical matter, school officials are responsible for looking after the health and safety of their students. The schools act *in loco parentis,* meaning the schools take the place of the parents in a special way. Schools are obligated to return children to their parents or guardians at the end of the school day with the same health status they had when they left home to go to school. Schools are responsible for children and youth on the way to and from school as well as during the school day. This responsibility requires that teachers and administrators take positive action in two ways.

First, school personnel must take reasonable steps to protect students from potential harm stemming from hazards created by the physical environment of the school building and its surroundings, as well as hazards created by students' actions or those of others. Children and youth frequently act impulsively or fail to think through the risks they may encounter. Because school personnel should understand these qualities of young people, they are accountable for dealing with and removing harmful situations, whether physical, personal or interpersonal.

Second, school personnel must discipline students who misbehave, holding them accountable for their behavior. Discipline may take the form of requiring students to serve detention after school or, when statutory laws have been broken, legal steps involving law enforcement.

Both aspects of the school's duty to act require that teachers and administrators, as well as any other designated school officials, supervise the conduct of students. Active supervision and an adequate number of supervising school personnel help to reduce or eliminate risks to the greatest extent possible. Much case law in the courts has demonstrated the adverse consequences when teachers and administrators fail to provide supervision when called for, supervise inadequately by ignoring or neglecting supervising duties, or fail to provide enough supervisors.

The importance of the school's ethical and legal obligation to protect its students warrants annual review, discussion and revision of school policies and procedures by all school personnel to try to identify the best means for doing so. Administrators and teachers new to the school, as well as student teachers, should receive an orientation to their supervisorial and legal duties. They should also become familiar with the policies and procedures established by the school and school district. Specific problem areas need to be identified and action plans developed to address them, with a firm date for resolution identified. New problems arising during the school year should be the subject of staff meetings as needed and should be resolved at the earliest possible date.

Adapting the Physical Environment

Another basic area of responsibility for health protection at the school is the adaptation or modification of the school's physical environment and daily schedule to meet the needs of those who attend the school each day. As the physical plant and equipment ages and as characteristics of the surrounding community and students change, the need for altering the school becomes apparent. If schools are to continue to meet needs, then classrooms, offices, gyms, fields and equipment must be adapted to fulfill changing educational missions.

First consideration should be given to identifying and correcting physical hazards in the schools. These changes involve many physical aspects of the school, including:

- worn or dangerous building materials (e.g., gym floors or non-fire-retardant draperies)

- broken or inadequate ventilation systems
- holes in playing fields
- broken toilets
- leaking faucets and water coolers
- asbestos ceiling and/or floor tiles
- rickety stair railings and slippery, worn steps
- inoperable communications systems
- poorly maintained fire hoses and fire extinguishers

The life cycle of many of these parts of school buildings can be estimated and replacement budgeted. However, in recent years, the infrastructure of the school has often taken a back seat to other demands, such as new instructional programs to meet compelling educational needs, until such time as the physical plant's hazards to its occupants result in unavoidable and unfortunate personal or property damage. Many health and safety hazards are silent until other changes in the environment cause these threats to become manifest.

In the last several years, changes in law and in educational philosophy have demanded and encouraged the mainstreaming of students with handicaps into the school. Equal employment opportunity statutes have made it possible for those with handicaps to acquire teaching and administrative credentials to work in schools. As a consequence, school facilities have had to be modified or designed to accommodate these students and workers.

Meeting Basic Responsibilities in Schools at Risk

Many of our schools, and inner-city urban schools in particular, are experiencing an unrelenting deterioration of their capacity to deliver education. Problems include:

- poverty
- widespread alcohol and other drug use

- violence
- unemployment
- youth gangs
- deteriorating housing and closed businesses
- low educational attainment by parents
- premature pregnancies
- inadequate tax support for education and social and health services

These and other social and health indicators combine to create formidable barriers to meeting the educational needs of children and youth. Despite our increasing capabilities for education overall, changes in significant parts of our society have diminished the capacity of far too many schools to provide the basic necessities that make education possible.

Deteriorating schools, like all others, are total environments. There are reciprocal and interactive connections between the school's services, instruction and environment and the surrounding community. Substantial social problems in the community are reflected in the schools. School personnel can play an important role in counteracting the deleterious effects of impoverished communities on education. Despite the constraints of the environment, educational progress can be made.

The first priority of the school must be to provide a safe and healthy environment to protect students during the school day and on their way to and from school. Conditions in the inner-city environment make it increasingly difficult to meet this basic requirement. Schools have taken extraordinary steps to achieve this priority, with limited success. Yet educators recognize that without this foundation schools are greatly inhibited from developing an atmosphere supportive of learning.

School leaders need to make sure that unwanted outside influences are kept away or removed from the school. These disruptive influences, such as drug dealing and gang activity, undermine campus authority. School authorities have the legal responsibility and right to make sure that these unwanted groups are kept from school grounds. In some instances, these provisions extend to areas near the campus.

Disruptions at school wreak havoc with education and must be dealt with in a swift and effective manner to remove the individual or individuals precipitating the problem. School officials must also take steps to establish an environment that respects teaching and learning and the rights of youth to participate in the process without distraction.

To reinforce these measures, school officials need to develop contacts with community agencies interested in and responsible for services that will support a safe atmosphere for the school. They must also involve parent and community groups. Parents need to be given information about the progress being made at the school. Parents and other community members can offer feedback and help to reinforce the policies and procedures developed to create a safe haven at school.

Once the basic provisions for safety have been established and a stable environment has been created, school leaders can begin to expand health-promoting activities. All affected parties must be involved in this process under the consistent leadership of school administrators. Consistency and commitment must be translated into the daily schedules and activities of the school and into the attitudes and behavior of teachers, staff and students. This time-consuming process will have periods of progress and setback. Yet without a commitment to these procedures, schools at risk will not be able to provide the benefits of education to youth in these troubled environments.

Good Health as a Vital School Component

Once basic responsibilities for health and safety are met, schools can focus attention on the more substantive qualities of education. Underlying school improvement is the recognition that the health of all those learning and working at school is vital to the educational process. Health was identified as one of the seven cardinal principles of education more than a hundred years ago, with the recognition that being healthy makes it possible for learning to occur. This principle also applies to teachers and staff. Health is a foundation factor in education, as in most other aspects of life, because it is instrumental to all activities.

Health of Today's Children and Youth

Overall health of children and youth has improved over the years. According to the federal publication *Healthy People 2000* (U.S. Department of Health and Human Services, 1991), death rates for children decreased by 21 percent from 1977 to 1987. Death rates also declined for adolescents and young adults during this same period.

For children and adolescents, unintentional injuries are now the major cause of death. Most of these deaths are due to motor vehicle crashes. Even these rates have been declining, although a disturbing upward trend has occurred for adolescents and young adults in recent years. For children, mandatory safety seats and the use of automobile safety belts have helped to reduce this rate. However, the rate of child and youth homicide has increased, with death by homicide becoming the leading cause of death among African-American males 15 to 19 years old.

Infectious and respiratory illnesses remain problems for children and youth. Influenza and other respiratory diseases account for most school days missed. Recent estimates of the prevalence of chronic health conditions for those under 18 years of age suggest that 31 percent, or almost 20 million children nationwide, have one or more chronic conditions. Of those with such conditions, 70 percent have one, 21 percent have two and 9 percent have three or more. Most children affected by these conditions report that their activities are not limited by the presence of the conditions most of the time.

The most commonly reported of these conditions are respiratory allergies and repeated ear infections. Other common chronic conditions include asthma, eczema and skin allergies, frequent or severe headaches, and speech defects. Less common conditions include diabetes, sickle cell disease and cerebral palsy. Chronic conditions are more prevalent among boys than girls and among White children than African-American. The cumulative impact of these conditions on school attendance in 1988 resulted in 41 million absences.

An additional concern is that diet and exercise patterns for our children and youth are changing. Youth are becoming a less physically fit and fatter group. Between 1965 and 1985, skinfold thicknesses (a measure of body fat) of children have increased. As measured by the U.S. Public Health Service, 15 percent of youth ages 12 to 19 were overweight in the 1976 to 1980 period.

Levels of fitness among youth in recent years have decreased, and the proportion of those leading sedentary lives has increased. Attempts to establish habitual physical exercise among elementary school children have indicated it is one of the most difficult of health habits to influence. As overweight, unfit children age into adulthood, they face increased risks of developing heart disease, cancer and stroke, the current leading causes of death among adults.

From these and other data, it appears that children in our society are moving in two directions. One group is moving toward a healthier, better educated and higher socioeconomic status. This is reflected in the data indicating a decline in death rates among children and youth and improvement in overall indexes of health status and longevity.

These young people are in position to excel in society. They have high achievement test scores, suffer from less disease and fewer disabling conditions, are more physically fit and will have the opportunity to maintain or improve their socioeconomic status as they assume adult roles. The improvement of status for this group of youth has contributed to improved health statistics for the nation's children and youth as a whole.

In contrast, however, a second group of children faces an alarming decline in health status due to the circumstances of their birth and living conditions. Statistics from public hospitals in major American cities indicate that 15 percent of babies are born alcohol- or drug-addicted. Low birth weight (less than 2,500 grams) occurs in about 7 percent of all births. Factors associated with low birth weight include pregnancy before age 18, lack of prenatal care, maternal smoking and use of alcohol and other drugs.

Effects of Poverty

According to the Maternal and Child Health Bureau of the U.S. Public Health Service, in 1989 there were 12.6 million children under age 18 living in poverty—almost 40 percent of the nation's poor. This represents an increase of 1 million since 1980. Slightly more than 20 percent of children have no form of health insurance coverage for health and medical services.

African-American or Hispanic children are three times more likely to live in poverty than White children. Poverty contributes to many difficulties for children and youth, including:

- learning disorders
- poor educational attainment and increased dropout rates
- inadequate nutrition
- more involvement with the criminal justice system
- psychological and emotional difficulties
- chronic physical conditions

Many children living in poverty live in two-parent families in which both parents work outside the home. However, these parents cannot earn sufficient wages to get their families out of poverty. This situation is complicated by parents' growing incapacity to achieve better jobs.

In California, for example, educational attainment of parents living in poverty has dropped over the past twenty years. Two results follow. First, parents are limited in finding better-paying jobs. Second, parental educational attainment is a predictor of educational attainment of their children. Thus, children living in poverty may remain there as they become adults with low education levels.

Children living in poverty are less likely to see a physician than those living above the poverty line. When these children do see a physician, it is more often in a hospital than any other place. Children living in poverty spend nearly 60 percent more days in the hospital than those from higher-income families.

Children without health insurance receive about half the care of those with health insurance, and this lack of care occurs when children are most vulnerable. It affects children's schooling as well as their development. If the nation is to see substantial improvement in the health status of its children and youth, serious attention must be paid to the circumstances of daily living for children in poverty.

Other Changes

Other changes in society have affected and will continue to affect school-age populations well into the next century. Working patterns for parents have changed. Today, 54 percent of mothers of children ages six to fourteen are working outside the home either full- or part-time. Thirty-seven percent of mothers of children under age six are working outside the home. Teenagers are working as well: 45 percent work sixteen hours or more per week.

Family structure has also changed. In 1990, 15.9 million children, almost 25 percent of those under age 18, lived in families with only one parent. This percentage had more than doubled since 1970. Experts estimate that approximately 60 percent of all children will live with a single parent at some time prior to age 18. However, when remarriages are considered, 75 percent of children do live in two-parent households for at least some part of their youth.

A recent study indicates that children living with only one parent are less likely to finish school, particularly boys who live with their mothers. Nearly 40 percent of children live in single-parent households with less than $10,000 annual income. African-American children are nearly three times as likely as White children to live with a single parent. In California, for example, one child in four is born to a single mother, and more than half of all African-American children are born to single mothers.

The increased presence of other cultures, languages and ethnicities has also had and will continue to have an impact on education. For example, by the year 2000, 42 percent of California's schoolchildren will be White, 36 percent Hispanic, 13 percent Asian, and 9 percent African American. Currently, one out of four California schoolchildren speaks a language other than English at home.

Other major metropolitan areas in the country are also experiencing this demographic shift. These changes have required schools to adapt school schedules, curricula and relationships with parents and other family members.

Health Care Needs of Teachers and Staff

Changes in the school-age population provoke much discussion and planning by state and local education agencies. However, looking only at students and their needs misses a substantial component of schools—administrators, teachers and other staff. Schools are among the largest employers in the nation. According to 1988 statistics, more than 4.3 million people work in public school districts and schools throughout the nation. Add the slightly more than 539,000 private elementary and secondary school employees, and the total is almost 5 million school employees overall.

As significant employers, schools are faced with the same concerns that businesses and industries have in regard to providing a comprehensive package of benefits. Sick-care costs and health insurance rates continue to increase at a dramatic rate. The United States spends approximately 12 percent of its gross national product on health care services. This cost has translated into an ever-increasing burden for those providing health insurance to their employees; for employees, who must directly bear increased rates; and for those who continue to drop out of insurance coverage either due to lack of employer-provided benefits or low wages that make health insurance unaffordable.

School districts and schools have responded by reviewing their capability to provide comprehensive health insurance benefits. Many districts have increased the number of part-time employees to save benefit costs. Other districts have passed along increased health care coverage costs to employees.

Districts and schools have also taken steps to create "Preferred

Provider Organizations" (PPOs) with local health care providers. This arrangement makes it possible for schools to negotiate a discounted rate for health care services with one or more providers to gain adequate coverage. In many instances, however, this represents only a one-time savings over a prior period or year, because costs increase at the same rate of acceleration as the Consumer Price Index in subsequent years, unless steps are taken to reduce utilization.

Another major strategy is for districts and schools to become self-insured, meaning that the district or school provides benefits to employees directly without using a third party such as an insurance company. Districts and schools must create an effective administrative and fiscal organization to manage this arrangement lest employee use of benefits exceed the funding the school has appropriated to cover them.

Business and industry have used other means to help control sick-care costs and health insurance. Many have adopted policies known to promote health, such as banning smoking in the workplace. Cigarette smoking contributes significantly to sick-care costs and lower productivity, due to illnesses from smoking itself and those such as colds and flu that are exacerbated by smoking.

Many of the behavioral factors affecting health can be positively influenced by the development of health promotion and disease prevention programs at the school worksite. These programs take positive and affirmative action to assist employees to take some control over their health by reducing risks for disease and to improve productivity and job satisfaction. Employers in business and industry as well as schools have increasingly recognized that organized programs of health enhancement—from stress management to weight reduction to smoking cessation—provide a return on investment for the costs of such programs aside from savings that may accrue from reduced sick-care costs.

Adults have the opportunity to protect and improve their health status through practicing behaviors consistent with good health. Most of the leading causes of death and disability can be avoided through modification of lifestyle. Cumulative evidence during the last half of this century has amply demonstrated that health and lifestyle are linked. For example, there has been a 40 percent reduction in coronary heart disease deaths and a 50 percent decline in stroke deaths since 1970. This change was largely achieved through reduced rates of cigarette smoking, lower average blood cholesterol levels, and increased control over high blood pressure. Deaths from motor vehicle crashes declined almost 30 percent from 1970 to 1990, primarily due to lower rates of alcohol use, increased safety belt use and changes in speed limits.

While these developments are encouraging, American patterns of adult living continue to produce results that, unless changed, will prevent further substantial progress and will contribute to the escalation of health care costs, lost productivity, absenteeism and premature years of life lost. Only one in five adults exercises lightly to moderately five or more times in a given week. Only one in ten exercises seven or more times weekly. Less than one in ten exercises vigorously enough to produce cardiorespiratory fitness.

One in four does not participate in physical activity at all. Almost one in three suffers from hypertension. One in four is overweight. Twenty-six percent of adults smoke. One in ten is addicted to alcohol, and almost one in twelve has difficulty with alcohol.

These statistics indicate that there is a significant amount of avoidable disease, disability and death among school personnel—avoidable because the behaviors contributing to these statistics are acquired over time as part of lifestyle. The personal, family and social effects of these conditions further justify efforts to intervene to avoid lost productivity, unnecessary absenteeism, employee turnover and premature death.

When health factors of children, youth and school personnel are combined, it can be seen that the health of all those learning and working at school has a substantial impact on what happens there. Health merits incorporation into planning and design of school buildings and grounds; curricula; student and staff services; and personnel recruiting, retention and retirement, including employee benefits.

The School as a Total Environment

Schools are influential, total environments for students and staff alike. The layout, quality and condition of the physical plant of the school have an effect on all who study and work there. Many studies have demonstrated the influence physical environment has on performance of tasks. Most of the nation's attention is focused on the curricular aspects of schools, i.e., reading, writing and arithmetic. Indeed, the largest proportion of school personnel are hired to teach. Yet schools contain far more complex and important influences. Just as the physical environment affects feelings about the school, the manner in which the school day is conducted also plays a significant role. The physical environment, the social environment, and the psychological results produced by the physical and social environment interact to have a profound effect on all who come in contact with the school.

For students, school policies and procedures—the rules—and the way they are carried out offer important guidelines for learning how to get along in society. Odds are that school rules will be different from those at home and require the student to adapt to the school's environment. As stated and unstated rules are applied through years of schooling, students quickly learn to pay attention to those that have priority and to ignore or avoid rules that they understand to be irrelevant or unenforceable. Students learn the required curriculum in the context of the rules, social structure and organization of the school.

Students make a contribution to this school structure based on their family, ethnic, linguistic and cultural backgrounds and their prior experiences in society and other schools. In a similar fashion, the backgrounds of school personnel and their roles and responsibilities in the school make a significant contribution to the environment of the school. Because teachers and other professional staff have different disciplinary academic backgrounds and teaching responsibilities, especially at the secondary level, their diversity has an important effect on the flow of the school day and the expectations, values and behavior of others.

As students interact with each other and school personnel in the context of the social and physical organization of the school, the character of the school is formed. Once formed, it changes through the progress of society and the changing qualities of students and personnel alike. It can also be altered through a more deliberate process—altering organization, social structure, curricular patterns, services, etc., and introducing technical and social innovations in the school. Changes may be as simple as repainting classrooms, offices and hallways. They may range from designing staff development programs to identify and work on problems in the way the school functions on a daily basis, to substantive redesign and re-equipment of the physical plant and grounds. Recent examples of deliberate alterations include the proliferation of magnet schools offering specific programs, computerized educational technology intended to augment instruction, and health promotion programs for school personnel.

One characteristic of most schools is the separation between students and teachers. Teachers are responsible for carrying out policies and procedures as well as teaching. Students often see their role in the school as very different from that of their teachers.

The view that the interests of teachers and students are separate will influence the social and emotional climate of the school. The gaps created by such a mindset can hinder communications and make it more difficult to address significant problems that affect students and staff.

Evidence from schools and districts with high dropout rates and lack of achievement, as measured by standardized test scores, indicates that adverse school environments contribute to students' lack of progress. Conversely, schools in inner-city environments that promote school achievement through policies and procedures, teacher/student interactions and the physical plant give evidence that schools have powerful tools to help with learning, often despite students' home and community conditions. Optimum conditions for learning exist when there is consonance between home, school and community and when school staff and students share common backgrounds.

Planned Health Promotion Programs for Staff

Personnel responsible for education need to feel they are important to the educational process and that their efforts are valued by school officials, students and parents. School leaders must implicitly and explicitly value the importance and the contributions of teachers, aides, counselors, support staff and students. Attention to both the achievement of specific, measurable goals and objectives and the interpersonal qualities of school life are important to the teaching/learning process. School leaders' clear specification of expectations of students and staff in a supportive environment helps reconcile humanistic and achievement orientations.

Morale, productivity and capability of teachers and other staff are essential to reaching the quantitative goals and objectives set for educators. School leaders can recognize and conserve the skilled labor force essential to education by providing a supportive environment and initiating health promotion programs. Such programs are designed to counter the often fatiguing process of guiding children and youth as they develop cognitively, psychologically and socially. By offering such programs and paying attention to the needs of school staff, leadership implicitly acknowledges the value and worth of school staff.

Schools have the personnel to protect and promote health. Schools retain health service, guidance and counseling professionals, as well as nutritionists for school meal programs. Within the instructional program many teachers have instructional expertise important to health, e.g., biology, home economics and physical education. By organizing collaborative efforts between teachers of these subjects, schools can offer important preparation to protect and promote the health of school staff as well as students.

Among the expected results of a schoolsite health promotion program is improvement in staff morale. Morale is strongly associated with commitment to the goals and objectives of an organization and is reflected in measurable terms such as absenteeism and productivity. Health promotion programs also have had demonstrated success in changing adverse health outcomes generated by behaviors deleterious to health, such as smoking, sedentary living, overweight and poor diet. These changes have had the effect of reducing health care costs. Health problems are minimized by a more healthful approach to managing the rigors of working in the school and an emphasis on the importance of individual staff members and their contributions.

Because of the interactive nature of the school environment, successes of health promotion programs with staff can affect students. Enthusiastic teachers and staff produce a climate of optimism around the goals and objectives of the school. Student expectations of their teachers and other school staff may be significantly altered as a result. Students then rethink and reorient themselves to their education in positive ways. Thus, promoting the health of school staff has multiple beneficial effects.

Beyond Teaching: The Social Environment

The social experiences gained at school include the formal processes governed by policy and procedure, teaching/learning and extracurricular activities, and the informal exchanges between students, staff, faculty and administrators. Social experiences are important to behavioral development as children mature. Children and youth, as well as adults, learn important cognitive and behavioral skills in a social context, either purposefully in a teaching/learning environment or through situations that call upon past experience or introduce new experiences, either directly or indirectly, through others. Social experiences include interactions between persons within the school and between school and family and school and community. These social experiences help shape the health attitudes, values and practices of youth as they mature into adults.

Children must be able to successfully adapt to the demands of new environments as they grow and develop. The demand for the ability to adapt increases as children get older. Therefore, young people must learn how to use social experiences to benefit themselves. They need to acquire cognitive and behavioral skills important to success, and social skills essential to coping with the social environment. These skills and others are learned in and out of the classroom, in school, at home and in the community. Children are faced with many conflicting messages. The must learn how to make critical analyses of situations, solve problems, make decisions and live with the consequences of their actions.

Children begin to learn how to adapt at home and then apply their skills to school and community environments as they experience them. The early imprint of values, attitudes, world view and modes of adaptation at home directly influences how children cope with the environment of the school.

Conflicting demands and expectations between these settings and with different people in these settings (e.g., parent and teacher) often produce stressful situations for students. There are many areas of potential and real conflict between home, school and community regarding students' health behavior. Standards of personal hygiene, nutrition, alcohol and other drug use, family life and human sexuality, use of health products, services and information may vary widely—a reflection of the complex nature of health as it is woven into lifestyles and world views.

Schools need to recognize the sources of social support for children and youth in the school environment. If support is lacking at home, children may have little incentive to strive for school success. Conversely, if support at home is strong, the probability of school success is higher. These divergent scenarios illustrate the need to match school conditions with those of families and communities, particularly social and economic conditions.

Schools must also recognize that the quality of the interactions between teachers and between teachers and administrators affects the social environment, as do demands on teachers and teacher morale. Chronic teacher turnover, lack of enthusiasm in the classroom, excessive absenteeism and lowered expectations of students indicate a poor social environment for learning. These conditions are transmitted to students in varied ways. They establish and reinforce the message that school is a difficult and unrewarding place. Consider the following questions:

- How much time and attention do teachers give students?
- How enthusiastic are teachers in presenting their lessons?
- What level of performance do teachers expect from students?

- How are students treated individually and as a group?
- Do teachers model the behavior of responsible adults?
- Do teachers follow through on their duties in the school outside the classroom?
- Are student problems recognized and handled promptly, either directly or through referral?
- Do teachers and administrators interact with students at school outside of required assignments?

We know that students can learn in spite of what is done to them in the classroom, but the cumulative effects of a negative social environment are antithetical to student achievement and deliver strong negative messages about the value of schooling. Poor conditions for learning in the classroom and school environment are reflected in lower achievement and higher dropout rates.

Reversing adverse trends in the social experiences of students and staff at school is difficult. Organizations, including schools, develop modes of functioning both in terms of the amount done and the way things are done. The principle of physics that objects in motion tend to stay in motion applies to school environments as well. To make changes in the social environment and the outcome of teaching/learning transactions, other aspects of the school must be changed.

Individuals in key positions, such as school administrators, must become champions for change toward a more supportive and healthful environment. Many schools have turned to building partnerships with community agencies to help make them more productive. The "I Have A Dream" Foundation was set up by a businessman in New York who visited the elementary school from which he graduated. He made a promise to the sixth graders he visited that if they would finish school, he would guarantee their college expenses. Another example of making substantial changes that directly speak to youth is the guarantee of jobs to all graduates of inner-city high schools by the city of Boston. These types of programs can have a positive effect on the social environment of the school, helping school officials, teachers, staff and students, as well as their families, reorder and redefine their expectations toward broader possibilities.

To alter the social experiences of students and staff in the school environment, changes must fit within existing conditions and patterns of the school. Examples of projects that successfully met their objectives but failed to be integrated into the regular life of the school are abundant. Applying fiscal and human resources to make changes is almost always possible, but lasting change occurs only with deliberate leadership and planning by those who can effect and those who are affected by changes, including families and community interests that have a stake in the success of the school.

The Importance of Role Models

Modeling is learning that occurs by witnessing another person perform a behavior. Modeling is sometimes called "imitative learning" or "observational learning." It is marked by the fact that it occurs without obvious direct reinforcement. The opportunity to witness the actions of others and the consequences of those actions enables us to acquire needed knowledge, attitudes, values and skills beyond the limits of our own direct experiences.

Our contemporary environment provides both students and school personnel with a volume of information and social experiences. Our internal systems for acquiring, sorting, evaluating and incorporating useful intelligence to manage our daily lives and our futures are first formed by early socialization experiences at home. These systems are developed, augmented, refined and extended through experiences in the community and at school. Beliefs, internal standards, perceptions of the environment, prior experiences, rewards and punishments help us to formulate systems for managing experiences and acquiring knowledge and skills. Capabilities acquired in school help us develop behaviors important to successful social functioning.

Influences on this process of development begin with the family. The family provides the fundamental socialization to enable youth to function in society. The family instills values, beliefs, outlooks and hierarchies of permissible and nonpermissible behaviors. Included in this family socialization are important attitudes and practices about health—nutrition, personal hygiene, coping with illnesses, protective behaviors (e.g., wearing safety belts and immunization against disease), to name just a few.

These attitudes are either repudiated or reinforced by the community. School supplies the technical knowledge and skills essential for full participation in society, from mathematics and English to health. But because social experiences are seamless, formal and informal learning in and out of school blend together.

To minimize confusion and ambiguity, youth need and expect consistency between the messages they receive and the behavior of the messengers. School learning experiences designed to improve nutritional habits are unlikely to be incorporated as a value or behavior if school meals and snacks negate the educational message. Attempts to promote vigorous physical activity are unlikely to succeed if the school or teacher delivering the message offers little support for regular physical activity. Young people can easily detect that one or more teachers smoke or that the teachers' lounge is, in fact, a smoking lounge. This can carry far more weight than in-class messages about the dangers of smoking.

Does this mean that those who come into contact with students each day—teachers, administrators and staff (to say nothing of parents and peers)—must be exemplary in the health behavior they display? It is easy to say that this is, indeed, what adults must do to demonstrate consistency: Do as I say, as well as I do. However, the complex nature of modeling behavior makes this directive problematic.

There is no question that noting the behaviors of others that have been consistently rewarded is valuable learning. Youth who are able to see behaviors and their consequences learn valuable lessons without having to use time-consuming and potentially costly trial-and-error methods to arrive at the same end. But people come from different backgrounds with different experiences and expectations, and behaviors and their consequences are not always seen. Therefore, the power of a role model for any given individual will vary. If there are differences between the potential role model and the youth, such as gender or ethnicity, these differences may mediate the potential effects of the role model.

Teachers and other school officials need to keep in mind that their positions of power and importance in the classroom and school give them a great deal of potential influence. Students quickly learn, through personal and vicarious experience, that school officials exert broad influence in the school. This recognition is not limited to official school duties, but is generalized to other aspects of life, as the many requests for advice directed by students to teachers attest. Included among these generalized influences are the more overt aspects of adult authority figures—general appearance, speech, style, age, symbols of success or status, established or apparent expertise, and health behavior.

Young people are particularly vulnerable to influences that they would imitate. As children, youth take their cues from older and authoritative adults at home and in school. These figures are perceived as reliable guides to proper behavior. However, with the onset of adolescence, as they begin the process of shedding a child's identity and acquiring an adult role, youth do not look at adult authority figures in quite the same way. Media influence and the kinds of feedback children experience when they try to mimic adult behaviors may accelerate this process.

Adolescence stimulates youth to develop their own identities and modes of functioning, without the assistance of traditional authority figures. They often turn to their own or somewhat older peers as guides. Peers have been identified as important role models in adolescence, as well as in other periods of development. Unfortunately, peers are often in the same situation as their contemporaries as they try to sort out how to think, feel and perform—a process filled with trial and error for all involved.

Young people, as well as adults, are attracted to individuals who have an aura of confidence and authority or who have apparent success in desirable areas. Teachers and other school officials often have great potential to influence youth because of the quality of their interactions with young people in and out of the classroom or because they possess qualities with which young people closely identify. These qualities could be the relative youth or youthful appearance of a teacher, the teacher's gender or ethnicity, or her or his involvement with extracurricular activities in school or outside of school.

School officials are more likely to be influential role models if they share the background and characteristics of the student body of the school. They also may be attractive to youth if they display interest in and concern about young people and conduct themselves in ways that indicate that they are fair minded and reliable. None of these qualities necessarily relate to what teachers teach, but they do affect the way school figures conduct themselves in and out of the classroom and how they handle their interactions with students and others in the school. Adult role models can give reassurance to adolescents during a turbulent period of life.

Health Messages and the School Environment

Students recognize the similarities and differences between the messages adult authority figures present in and out of the classroom and the way they conduct themselves in the social environment of the school. Those who teach about health topics, whether health educators or not, are the most vulnerable to student comparisons of what is said and what is practiced. This is particularly true when health messages conflict with or contradict behaviors practiced in the school, home and community environment.

Rather than demand strict consistency between what is said and done in classroom settings, which puts an inordinate amount of pressure on individual students and teachers, attention should be focused on the environment of the school, home and community. Positive role models have the most effect when the environment supports their cognitive and behavioral messages. This gives the would-be follower the opportunity to witness the professed behavior in more than one environment, performed by more than one role model. Nothing could be more difficult than to be a lone voice for health in an adversarial, deteriorating physical and social environment.

Role-modeling messages must be supported by others in the school environment to be effective. Naturally, the messages supporting health urge individuals to take control over areas where they can act in healthful ways. But much of society makes it difficult for youth as well as adults to see the benefits of such behavior when the social environment clashes with messages given in the classroom.

For example, students have every right to question health messages about smoking when they see that cigarettes are widely and legally available, that cigarette makers sponsor any number of athletic and cultural events, that the federal government supports tobacco farming, and that smoking is allowed in virtually every environment, including the home and school. The fact that the teacher with the antismoking message does not smoke plays only a small part in students' understanding of the use of tobacco in society.

When actions are taken to match the school environment with antitobacco messages, the modeled behavior and messages are substantiated. Students receive feedback that health messages against the use of tobacco are to be taken seriously as more social environments become smoke free, including the school.

Health messages are up close and personal. Health messages are immediately evaluated by students as they reflect on their own current behaviors as well as the behaviors of others who are significant to them. Disparities between messages and behaviors often lead to questioning the credibility of the individuals who are health advocates rather than thoughtfully evaluating the social environment and the factors that contribute to or compromise health. This tendency is natural in a society that extols the importance of the individual and the right to self-determination. Tales of personal successes against obstacles found in society, whether economic, social or educational, are used to illustrate that the grit and determination of the individual will overcome all barriers. Missing in this scenario, however, is consideration of the physical and social environments that help to shape opportunities for self-determination.

As educators, we know that success stories help to stimulate and motivate individuals to exert efforts for their own success. At the same time, we know that there are key ingredients for successful lives in society. Among these key ingredients is success in school, which often translates into opportunities for success in life. There is a relation between supportive home environments, school successes and successful adult roles. To the extent that disjunctions or conflicts between home, school and community exist, opportunities will decrease and the individual's potential for growth and development will be subordinate to social circumstances.

Any school environment designed to help young people protect and promote their health will reflect society's many inconsistencies and contradictions about health practices. After all, it takes many years of living for most of our significant health problems—heart disease, cancer and stroke—to occur, and school employees face the same choices and consequences of health behavior as their students. But because these employees have responsibility for millions of impressionable youth, they need a supportive environment to protect and promote their health.

The Larger Mission

We have an even larger mission for developing healthier environments, because students cannot learn well if they are not healthy. They cannot learn if their lives are at constant risk for intentional and unintentional injury. Health status is directly linked to school achievement. A total school environment dedicated to promoting health can have multiple beneficial effects for learners, teachers and other staff, effects that can be measured by such diverse markers as educational achievement and medical care insurance claims. Investment in personnel, services and facilities to promote the optimal well-being of students and staff has the potential to pay vast dividends over time as school personnel and graduates lead healthy lives.

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Chapter 7

School Health Services: Issues and Challenges

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> Learning does not take place in isolation. Societies therefore must ensure that all learners receive nutrition, health care and general physical and emotional support they need in order to participate actively in and benefit from their environment. (World Conference on Education for All, 1990)

Two concepts undergird the comprehensive school health program: healthy children learn better, and children provided the opportunity to adopt health-enhancing behaviors in childhood will become healthier adults. The school health services program, one component of the comprehensive school health program, is designed to ensure a safe, healthy environment conducive to learning and to provide professional care for those who become ill or injured while at school. The primary purpose of the health services program is the optimal maintenance, promotion, protection and improvement of student, staff and community health through counseling, instruction, appraisal, screening, referral and follow-up services (Snyder, 1991).

Rationale

It has been said that children are one-third of our population and all of our future. A cursory review of the health of children and youth in our nation does not portend a healthy future. The National Commission to Prevent Infant Mortality states that our nation's mothers and children are in trouble. The United States ranks behind 31 other nations in the number of children born with low birth weight, twenty-second in the number of infants who die in their first year of life and twentieth in the number of children who die before their fifth birthdays (National Commission to Prevent Infant Mortality, 1992). While there were improvements in several health measures during the 1980s for children and youth, including a reduction in infant mortality and overall childhood death rates, there was no change in the teenage pregnancy rate and the percent of low-birth-weight infants. Furthermore, the death rates due to homicide and suicide actually increased (U.S. Department of Health and Human Services, 1991a).

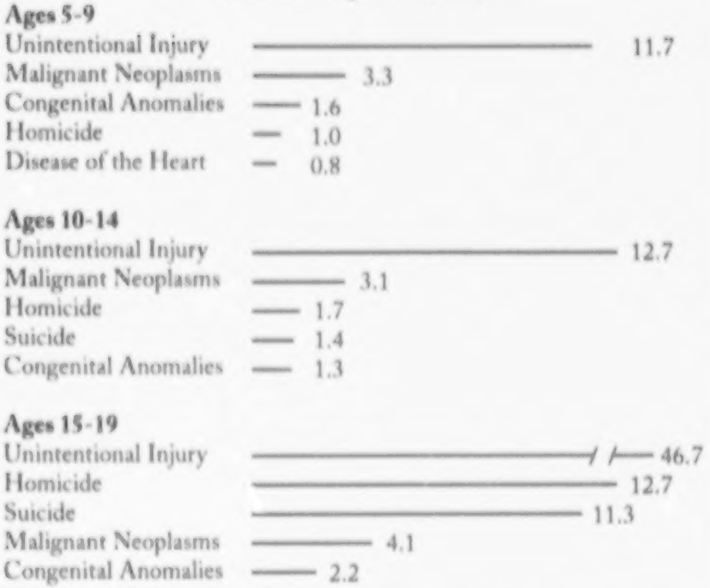
The leading causes of death for children and youth ages 5 to 19 are unintentional injury, cancer, homicide, suicide and congenital anomalies. In all age categories, unintentional injuries lead in cause of mortality; for children ages 5 to 14 cancer is the second leading cause of death, but for those ages 15 to 19, homicide is the second leading cause of death (U.S. Department of Health and Human·Services, 1991a). (See Figure 1.)

Because the leading causes of death in adults (heart disease, cancer and accidents) are related to nutritional, fitness and safety habits established while young, it is important to understand the extent of health-debilitating behaviors common among today's students.

Figure 1

Leading Causes of Death for Ages 5-19

(death rate per 100,000)



Adapted from U.S. Department of Health and Human Services, Public Health Service. 1991. *Child Health USA '91*. DHHS Publication No. HRS-M-CH91-1. Washington, DC.

- One in four fourth graders (26 percent) and four in ten sixth graders report that many of their peers have tried beer, wine or distilled spirits (U.S. Department of Health and Human Services, 1991b).
- More than one in three secondary school students (36 percent) had consumed five or more drinks on at least one occasion in the past month (CDC, 1991a).

- Almost one in four adolescents ages 12 to 17 have tried an illegal drug (Irwin et al., 1991).
- One in three high school seniors (33 percent) reported having five or more drinks on one occasion within the past two weeks (Inter-Agency Commission, WCEPA, 1990).
- Only 40 percent of students ages 10 to 18 engaged in appropriate physical activity on a year-round basis (Ross and Gilbert, 1985).
- One in two adolescents will become sexually active by the time they graduate from high school (Inter-Agency Commission, WCEPA, 1990).
- One in four sexually active teenagers will become infected with a sexually transmitted disease before graduating from high school (Gans and Blyth, 1990).
- Nineteen percent of high school students report daily use of cigarettes. One in two eighth grade students report having tried cigarettes; almost two in three tenth grade students (63 percent) have tried smoking (ASHA, AAHE and SOPHE, 1989).
- Two in twenty students in grades 9 through 12 reported that they had carried a weapon at least once during the past month. Of those students carrying weapons, 36 percent reported doing so six or more times (CDC, 1991c).
- Almost three in ten students in grades 9 through 12 (27.3 percent) reported that they had thought seriously about attempting suicide in the 12 months preceding the survey (CDC, 1991b).

These behaviors contribute to a disease classification which has been called the "social morbidities," the threats to the well-being of children and youth that are primarily the result of the social environment and behavior: suicide, homicide, sexually transmitted disease including HIV infection, unintended pregnancy and substance abuse (Gans and Blyth, 1990).

A number of reasons have been proposed to explain both the status of students' health and their behaviors: the number of children in poverty, inadequate health insurance coverage, family composition and working mothers (U.S. Department of Health and Human Services, 1991a; Fox, Wicks and Libson, 1992). While one in five children live in poverty, this age group represents nearly 40 percent of the nation's poor. In 1989, a family of four was considered to be living in poverty if its annual income was below $12,675. Eleven percent of children living in poverty were publicly insured, primarily through Medicaid, but 33 percent of these children had no health coverage (U.S. Department of health and Human Services, 1991a).

Children from low income families are less healthy than children whose families are more affluent. Further, their relative ill health is compounded by difficulty in obtaining medical care. Compared to their more affluent peers, they are significantly less likely than other children to receive physical examination, vision testing, immunizations and dental care (Williams and Miller, 1991).

During the past two decades the percentage of children not living with both parents has increased from 12 percent to 25 percent. Currently, approximately 25 percent of all children live with only one parent, usually the mother (U.S. Department of Health and Human Services, 1991a). It is estimated that half of the children born today will spend a part of their childhood in a single parent home (Children's Defense Fund, 1990). In 1970, 29 percent of mothers with preschool children and 43 percent of mothers with school children were working. Today the numbers have risen to 58 percent and 75 percent (U.S. Department of Health and Human Services, 1991a).

To help children who are struggling to survive the challenges of poverty, teen pregnancy, substance abuse and chronic disease, the Education and Human Services Consortium suggests structuring interagency partnerships to connect children and families with comprehensive services (Melaville and Blank, 1991). Because schools offer the critical point of access, they become an ideal location for health and human services to be provided along with educational programming.

There has been a renewed interest in school-based health promotion, according to the Harvard School Health Education Project, which conducted a national policy analysis of 25 different reports published between 1989 and 1991 (Lavin, Shapiro and Weill, 1992). (See Appendix D.) The common themes emerging from these reports included the following points:

- Education and health are interrelated.
- The biggest threats to health are "social morbidities."
- A more comprehensive, integrated approach is needed.
- Health promotion and education efforts should be centered in and around schools.
- Prevention efforts are cost-effective; the social and economic costs of inaction are too high and still escalating.

Phil Porter, an associate professor in the Department of Pediatrics, Harvard, has articulated a variety of advantages of locating health services programs in schools: (1) care is easily accessible and immediately available; (2) students will miss less school traveling to health care; (3) schools have well-developed health record-keeping and tracking systems; and (4) all children and youth have an opportunity to participate in the health care system early in their lives and form good habits for their health and well-being (Policy Studies Associates, 1992).

Traditionally, the school health services program has tried to serve as the bridge between education and health and between services in the school and services provided by the community. The school health services program, like the comprehensive school health program, employs multiple interventions to promote the health of students, staff and families. The variety and scope of the interventions may vary but in general they can be characterized as belonging to one of three delivery models: basic health care, expanded health care and comprehensive primary health care (Schlitt, 1991). (See Figure 2.)

Organization of School Health Services

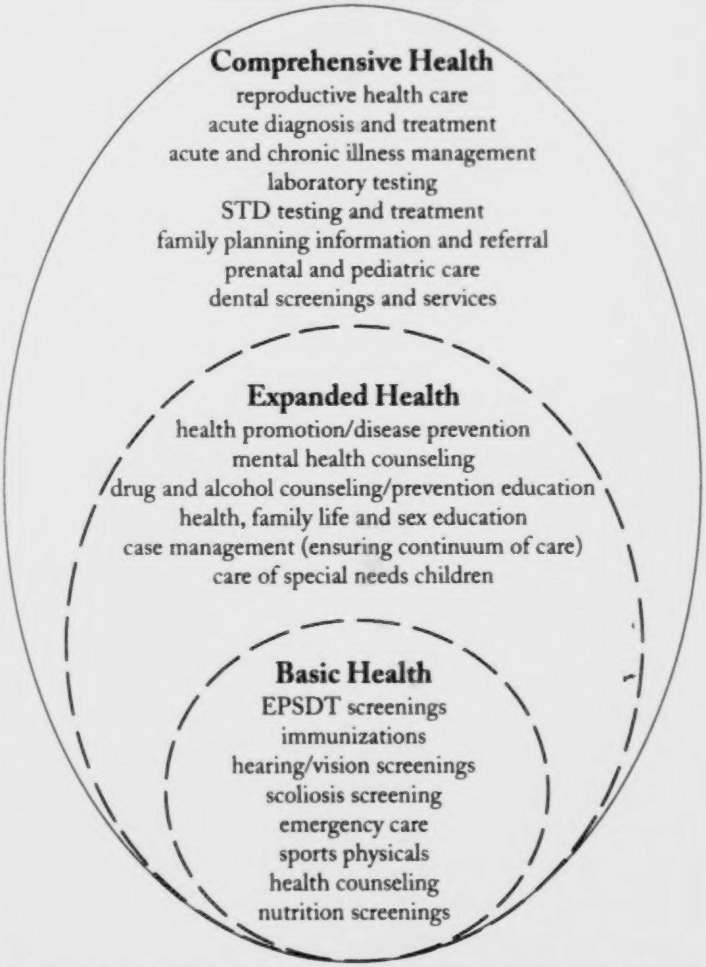
Thirty-three states have educational codes or legislation establishing a legal basis for school health services (Lovato, Allensworth and Chan, 1989). While state mandates for health services vary, those states that do mandate health services usually require only minimum basic services. However, the continuum of care that may be provided within the school health program—from basic screening and first-aid to comprehensive primary health care—may be found within state statutes (National Health/Education Consortium, 1990). The extent of health services provided in any local school is dependent upon state guidelines and the model chosen by that school district. While three distinct models will be described here, schools organize their programs to meet their health needs and financial constraints. Therefore, in any given school, elements of one or more of the models may be in existence.

Traditional Basic Care

Lawton Chiles, the governor of Florida, had the following to say:

> We absolutely cannot afford to wait until the school bell rings to attend to our children's health and de-

Figure 2
School Health Services


Comprehensive Health
reproductive health care
acute diagnosis and treatment
acute and chronic illness management
laboratory testing
STD testing and treatment
family planning information and referral
prenatal and pediatric care
dental screenings and services
Expanded Health
health promotion/disease prevention
mental health counseling
drug and alcohol counseling/prevention education
health, family life and sex education
case management (ensuring continuum of care)
care of special needs children
Basic Health
EPSDT screenings
immunizations
hearing/vision screenings
scoliosis screening
emergency care
sports physicals
health counseling
nutrition screenings

Adapted with permission from the Southern Center on Pregnancy Prevention. J. J. Schlitt. 1991. *Bringing Health to School: Policy Implications for Southern States.* Washington, D.C.: Southern Center on Adolescent Pregnancy Prevention.

> velopmental needs. We need to start thinking of immunizations and well-child care, health screening, proper food and prevention of health problems as being just as important as books and pencils and chalkboards and teachers. (National Health/EducationConsortium, 1990)

The predominant model across the nation is one of basic screening provided by the school nurse. This model is an outgrowth of the initial school health program founded at the turn of the century in which physicians were appointed as public school health officers to reduce contagion and absenteeism. By 1910, 337 cities in the United States required medical inspections (Snyder, 1991). Although the number of school physicians employed in 1910 outpaced school nurses by three to one, over the years school nurses have become the predominate providers of services. The school nurse, with assistance from health aides, usually staffs this program. Currently, some large districts continue to employ physicians, but many districts secure a physician only as a paid or volunteer consultant to the health services program.

Interventions provided by this model include periodic screening for vision, hearing and scoliosis; sports physicals; emergency care; direct services for special need students; individualized health care plans; administration of medicine; monitoring of immunizations; and provision of health counseling and patient education. Thirty-three states have legislated this type of school health services programming, but only twelve states have mandated specific health facilities.

Expanded School Health Services

> In a country where many U.S. children live in poverty, do not share equally in health and access to health care, and are at risk for several adolescent

> problems, health promotion has become the new frontier in health care. (Giordano and Igoe, 1991)

Because of technological gains in medical care over the past century, the focus of child health has shifted from medical care to the promotion of health and prevention of disease. Many of the problems facing today's youth—substance use, stress disorders, suicide—can be ameliorated through health promotion interventions (Giordano and Igoe, 1991). The expanded health services program builds upon the basic school health services foundation and extends the range of services provided to students by the health service staff and public health and community mental health providers who are brought into the school on a part-time basis (Schlitt, 1991).

One example of expanded services is the Student Assistance Program. Because of the focus of the Department of Education on substance abuse prevention, a number of schools have developed student assistance programs for both elementary and secondary students (Cohen, 1989). These programs, like their counterparts in the adult workplace (Employee Assistance Programs), may be administered by the school or by an outside mental health agency contracted by the schools. If the school health services program is not directly involved in the delivery of these services, it often provides leadership in assisting teachers to recognize and refer students with problems.

To implement a health promotion program, the American School Health Association's School Nurse Study Committee suggests that an interdisciplinary school health service task force that would include parents be formed in each school district. In addition to the customary health screening provided by school nurses, the following additional assessments should be conducted: health hazard appraisal, fitness screening, developmental evaluation and nutritional history. From these screenings, school nurses could prepare annual individualized health plans that emphasize disease prevention measures. Special attention would be provided to students who have had no previous prevention health services and/or students who have special health problems or disabilities. Instructional programs in health and safety, along with environmental monitoring and use of the cafeteria as a nutritional learning laboratory, would complete the health promotion program (Igoe, 1990).

Comprehensive Primary Health Services

> Education requires undivided attention—possible only when children are free from discomforts caused by physical and emotional conditions that can be prevented, diagnosed, treated, or minimized through the provision of comprehensive primary health services. (Joint Statement of ANA, ASHA, NAPNAP, NASSNC, 1988)

The model which has generated the most interest recently is the comprehensive health service program in which primary health care is provided in school-based or school-linked clinics. The placing of clinics in schools has steadily increased since the first school-based clinic was established in 1970. By 1991, the Center for Population Options (CPO) had identified 306 school-based and 21 school-linked clinics operating in 33 states and Puerto Rico (Riessman, 1991). Typically, school-based clinics serve only one school while school-linked clinics serve students from more than one school as well as students from elementary through secondary schools and out-of-school youth. Of those school-based clinics identified by CPO in 1991, 51 percent operated in secondary schools, 13 percent in junior high or middle schools and

19 percent in elementary schools. Twelve percent served students from various levels (Riessman, 1991).

Within the past few years, comprehensive health care has expanded its focus from school-based clinics that provide only primary health care to full-service agencies that provide "one-stop shopping" for all health and social services including primary health care, mental health counseling, vocational services and social services. A movement to expand school-based health services to include primary health care has been advocated by leaders in education, business and government as well as health experts as a necessary strategy for improving students' academic performance. This interest has been stimulated by several factors: the increasingly complex array of unmet health care needs; the increase in premature sexual activity, substance use and violence among adolescents; lack of access to health care by uninsured families; increasing participation of mothers in the work force; and an increasing acknowledgment of the need to provide services to the children whose parents are addicted to alcohol and drugs (Fox, Wicks and Libson, 1992).

The medical services offered by school-based or school-linked clinics are quite similar. More than 90 percent of these clinics provide assessment and referrals to community health care providers or private practitioners, general primary care, acute and chronic illness management, routine and sports physicals, laboratory tests and mental health counseling. A number of clinics provide nonmedical services, including health education (96 percent), nutrition education (91 percent), mental health and psychosocial counseling (79 percent), drug and substance abuse programs (58 percent), family counseling (76 percent), sex education in a classroom setting (64 percent), as well as general health care, first aid and routine sports physicals. (See Figure 3.)

Administrative, medical and counseling personnel typically

Figure 3

Types of Medical and Counseling Services Provided by SBCs and SLCs

Medical Services	**SBC**	**SLC**
General primary care	91%	87%
Routine or sports physicals	91	87
Diagnosis/treatment of minor injuries	92	93
Laboratory tests	87	93
Medications prescribed	83	87
Chronic illness management	78	60
Immunizations	71	86
Pregnancy tests	69	87
Medications dispensed	69	71
Diagnosis/treatment of STDs	57	87
EPSDT screening	41	67
Dental services	28	13
Pediatric care of infants of adolescents	19	33
Gynecological exams	56	80
Prenatal care on-site	24	33
HIV testing	14	33
Counseling Services		
Health education	96%	100%
Nutrition education	91	93
Mental health/psychosocial counseling	79	100
Job counseling	79	100
Sexuality counseling	76	100
Weight reduction	67	67
AIDS education in clinic	64	71
HIV counseling	61	67
Sex education in classroom	64	73
AIDS education in classroom	59	47
Support groups	58	53

Adapted with permission from Center for Population Options. C. Waszak and S. Neidell. 1991. *School-Based and School-Linked Clinics: Update 1991.* Washington, DC: Center for Population Options.

staff a school-based clinic (Waszak and Neidell, 1991). Approximately 80 percent of the clinics employed a physician, if only part-time; 50 percent of clinics employ nurse practitioners and social workers. The school nurse was present in approximately two-thirds of the school-based clinics and worked as part of the school-based clinic staff in one-third of the clinics. Figure 4 identifies the role of those school nurses who worked as part of the school-based or school-linked clinic staff.

Figure 4

Services Provided by School Nurses in SBCs and SLCs

Services	SBC	SLC
Performed screening	78%	75%
Provided follow-up services	73	75
Delivered direct services	68	38
Participated in staff meetings	60	50
Served on advisory boards	54	75
Supervised paraprofessional staff	30	13
Served as clinic manager/director	21	13

Adapted with permission from the Center for Population Options. C. Waszak and S. Neidell. 1991. *School-Based and School-Linked Clinics: Update 1991*. Washington, DC: Center for Population Options.

Fifteen states have recently enacted legislative or executive action that focuses on school-based clinics (Center for Population Options, 1989). Among the issues of concern at such clinics are consent, confidentiality and liability. While all clinics questioned by CPO required parental consent, this did not appear to be a problem in the delivery of care since only a very small percentage of parents withheld consent for services. Confidentiality laws vary considerably from state to state. School-based clinics can share information among clinics without a release but do not share information with other school personnel or community agency staff. Also, clinic records are not part of the "school health record." However, in some states, parents may have access to or authorize release of a minor patient's medical information. While there are a variety of reasons that a school-based clinic might face legal action, including failure to obtain consent, unauthorized disclosure of confidential information or failure to provide appropriate treatment, there has only been one lawsuit brought against a school-based clinic in the 18 years of their operation and that suit was dismissed as being without legal foundation (Center for Population Options, 1989).

Financing

The Council of Chief State School Officers made the following statement:

> At a time when many families across all income levels are experiencing greater stress and when child poverty is at record levels, the school cannot view itself as an isolated institution within the community, separate from family and community services. (Melaville and Blank, 1991)

The funding and sponsorship of school-based and school-linked clinics varies considerably. Three-fourths of school-based clinics are sponsored about equally by three types of agencies: community health clinics (28 percent), public health departments (26 percent) or hospital medical schools (24 percent); school-linked clinics are predominantly sponsored by public health departments (40 percent) (Waszak and Neidell, 1991).

Traditional school health services have been funded by three alternative models: (1) the provision of service by the public health department within the limitations of their operating budget; (2) the purchasing of services from the public health department by the school board; or (3) the direct employment of school health staff by the school board. In twenty states the school board has authority to hire health services personnel; in two states the public health department has authority to hire the health services personnel; 16 states allow both agencies to share hiring responsibilities and 12 states permit either agency to employ the health services staff (Lovato, Allensworth and Chan, 1989).

The Education and Health Services Consortium suggests that the key to large-scale delivery of comprehensive health services is interagency partnerships (Policy Studies Associates, 1992). Interagency partnerships offer the opportunity to (1) unite a broad spectrum of professional expertise and agency services on behalf of families and children; (2) secure funding from several institutional budgets; and (3) develop extramural funding requests for additional resources to create more effective prevention treatment and support services. Initiatives to expand interagency programming have occurred at both the service delivery level and at the system level. The names, purpose and contact person for selected examples of collaborative health services programming are provided in Figure 5.

Human Resources

The health services team, regardless of the delivery model used by the school system, may be comprised of a variety of specialists: physician, school nurse practitioner, school nurse, social worker, dentist, speech and hearing specialist, and health aide. At a minimum, health care experts suggest that a school nurse who works under the supervision of the public health director or a contrac-

Figure 5

Interagency Collaboration to Provide Health Services Programming—Selected Examples

Program	Purpose	Contact Person	Funding
Health Start, St. Paul	Combine adolescent medical health services and childcare	D. Zimmerman Director 640 Jackson St. St. Paul, MN 55105	Local budgets
Ensley H.S. Health Center	Provide primary health care and health education	D. Bailey, Director Department of Health 1400 6th Ave. S. Birmingham, AL 35202	Foundation grant
Communities in Schools	Provide health and social services at school site	D. Bine, Director Suite 150 4000 West Chase Blvd. Raleigh, NC 27607	Local budgets and private grant
School-Based Youth Services Program	Provide comprehensive preventive health and social services at school site	R. Knowlton, Director School-Based Youth Services Department of Human Services, CN 700 Trenton, NJ 08625	State funds and local funds
Joint Interagency Agreement	Mandated collaboration between state health and education agencies to provide health services	J. Battaglin, Coor. Comp. Health Services Department of Health and Rehab. Services 432 House Office Bldg. Tallahassee, FL 32399-2834	State funds

Reprinted with permission from the National Health/Education Consortium. Policy Studies Associates. 1992. *Creating Sound Minds and Bodies: Health and Education Working Together.* Washington, DC: National Health/Education Consortium, (202) 205-8364.

tual, part-time physician be employed (Hummel and Humes, 1984).

Physicians

Physicians serve in the school health services program in various ways, paid or volunteer, as full- or part-time staff to either the total program or to a specific element—for example, as the medical consultant for special education or an athletic team physician. Large metropolitan districts may employ more than one physician while smaller districts often contract for a physician consultant (American Academy of Pediatrics, 1987).

Responsibilities of the school physician include:

- examining students referred because of infectious disease, health problems detected through screening, or frequent absences
- conducting medical evaluations for special education placement
- conducting sports physicals
- contributing to the health education programs for students, school personnel and parents
- serving as a general consultant on health, environmental and safety concerns

Only three states provide opportunities for school physician certification. However, 17 states require school physicians to have either an MD or DO degree in order to practice as a school physician, and eight states require an MD degree (Lovato, Allensworth and Chan, 1989).

School Nurses

In most schools, the major provider of day-to-day health care is the school nurse (American Academy of Pediatrics, 1987.) Qualifications for school nursing vary; 32 states require a registered nurse's license while nine states allow licensed practical nurses to be employed. Eighteen states also require school nurse certification in order to practice (Lovato, Allensworth and Chan, 1989).

The five professional associations that promote school nursing have identified the following specific standards for the school nurse (Dleaf, Young and Hamilton, 1990):

- applying appropriate theory as the basis for decision making in nursing practice
- establishing and maintaining a comprehensive school health program
- developing individualized health plans
- collaborating with other professionals in assessing, planning, implementing and evaluating programs and other school health activities
- assisting students, families and groups to achieve optimal levels of wellness through health education
- participating in peer review and other means of evaluation to ensure quality of nursing care for students
- participating with other key members of the community responsible for assessing, planning, implementing and evaluating school health services and community services, including promotion of primary, secondary and tertiary prevention
- contributing to nursing and school health through innovations in theory and practice and participation in research

Each state defines the role and the responsibilities of the school nurse through legislative mandates, Department of Education guidelines, state board regulations and certification requirements. Figure 6 provides a listing of those responsibilities that the states mandate. The specific procedures mandated are discussed in the next section.

Figure 6
Responsibilities of the School Nurse

	Level of Policy		
Responsibilities	**Mandatory Requirements N (%)**	**Recommended Requirements N (%)**	**No Policy N (%)**
Help prevent/control disease	19 (37%)	26 (51%)	6 (12%)
Appraise health status of students	18 (35%)	26 (51%)	7 (14%)
Plan for students with special needs	16 (31%)	27 (53%)	7 (14%)
Provide emergency care	11 (22%)	31 (61%)	8 (16%)
Promote optimum sanitary conditions	11 (22%)	26 (51%)	14 (27%)
Counsel students/parents about health findings	8 (16%)	34 (67%)	8 (16%)
Coordinate student care with other agencies	6 (12%)	31 (61%)	14 (27%)
Provide health instruction	4 (8%)	30 (59%)	16 (31%)

Reprinted with permission from the American School Health Association. C. Y. Lovato, D. D. Allensworth and F. A. Chan. 1989. *School Health in America: An Assessment of State Policies to Protect and Improve the Health of Students.* 5th ed. Kent, OH: American School Health Association.

School Nurse Practitioners

The school nurse practitioner has completed an additional formal course in assessment, management of illness and injury, and health education in order to be prepared to assume the expanded role of providing primary care to students under the direction of a physician. Sixteen states have established school nurse practitioner certification (Lovato, Allensworth and Chan, 1989).

Health Aides

Because of the increased numbers of students with special health needs as well as decreased funding, which precludes employing additional nurses, health aides may be employed to assist the professional staff in delivering specific health services and/or recording health information (Snyder, 1991). Thirty-nine states employ health aides and nine states regulate the function of health aides (Lovato, Allensworth and Chan, 1989). In addition to paid health aides, some schools solicit the services of parent volunteer assistants and student volunteer assistants to aid in the delivery of designated aspects of the health services program (Snyder, 1991). Nonprofessional health personnel most often are supervised by a registered nurse.

Health Services Programming and Issues

The components of a comprehensive program include the assessment of student health status, prevention and control of communicable disease, care of the ill or injured, procedures for students with special health needs, screening programs, provision of a safe and healthful environment, health promotion, health counseling, maintenance and operation of the school health office, development of a school health advisory council, and program evaluation (Snyder, 1991).

For the health services program to function efficiently, the five professional organizations that promote school nursing suggest a nurse-to-student ratio for the general school population of one nurse for 750 students. For students with special needs who are mainstreamed within the general school populations, the ratio is 1 to 225. For severe and profoundly handicapped school populations, the suggested ratio is 1 to 125. Only six states have mandated a 1 to 750 nurse-to-student ratio (Lovato, Allensworth and Chan, 1989).

Continuing Education Needs

Physicians, school nurse practitioners and school nurses are being asked to provide more leadership in the promotion of health enhancing behaviors. One survey found that 73 percent of school nurses were asked to deliver instructional sessions within the classroom. While teachers judged the presentations as effective (3.62 on a five-point scale), the nurses perceived their presentations as less than adequate (2.76 on a five-point scale) (Dleaf, Young and Hamilton, 1990). A national survey of primary care physicians, nurses, psychologists and social workers found that 40 percent of these professionals believed that they were unprepared to treat adolescents who have alcohol or other drug use problems, who are depressed or who are at risk for suicide (Schwab, 1991). Both preservice and inservice programs could provide training to improve the instructional competence of the nurse (Dleaf, Young and Hamilton, 1990).

Screening Programs

An important aspect of managing school health services is screening for conditions that are amenable to treatment, identifying students with the problem, referring students for treatment, monitoring follow-up care, assisting students to adapt to the condition and consulting with school staff to ensure that educational accommodations have been met. The exact screening procedures conducted in any school are dependent upon state mandates, rate of incidence of the condition, staff resources, availability of time and facilities.

The *Implementation Guide for Standards of School Nursing Practice* identified a number of conditions that must be satisfied to ensure the screening program is valid (Snyder, 1991):

- Is the condition treatable?
- Will early treatment improve outcome?
- Is there sufficient time for screening?
- Is the condition relatively prevalent?
- Is the screening procedure simple and inexpensive?
- Is the procedure reliable, i.e., are there a minimum of false positives and false negatives?
- Can referrals to local community resources be handled in an efficient manner?
- Are financial resources available to assist needy families?

Two major problems that may affect learning—visual and hearing impairment—have been the mainstays of screening programs. Between 12 and 20 percent of all students suffer from a hearing loss. Approximately 15 of the children screened for vision will need corrective lenses for refractory errors, 5 percent for strabismus, and 2 to 3 percent for amblyopia (Lovato, Allensworth and Chan, 1989). Other conditions for which screening programs have been initiated include scoliosis, height/weight, physical exams, dental caries, speech impediments, TB tests and lead poisoning. The number of states that mandate or recommend these screening procedures is provided in Figure 7.

Liability

Until recently, risks of liability were not of great concern to school nurses, but legal actions against school nurses are increasing. Although the number of legal actions remains small to date, school nurses may be at particular risk because they are generally isolated from other health care providers, conflicts may occur between the policies of the board of education and professional standards of care for nursing, and conflicts exist between laws

Figure 7

States Mandating or Recommending Screening Procedures

Requirements	Recommended N (%)	Mandated N (%)
Hearing	14 (27%)	30 (59%)
Vision	15 (29%)	28 (55%)
Scoliosis	19 (37%)	20 (39%)
Height/Weight	19 (37%)	11 (22%)
Physical Examinations	15 (29%)	10 (20%)
Dental Examinations	21 (41%)	8 (16%)
Blood Pressure	15 (29%)	4 (08%)

Reprinted with permission from the American School Health Association. C. Y. Lovato, D. D. Allensworth and F. A. Chan. 1989. *School Health in America: An Assessment of State Policies to Protect and Improve the Health of Students.* 5th ed. Kent, OH: American School Health Association.

related to education and those related to health care. For example, parents are entitled to access to their children's educational records but some medical procedures protect minors' rights to confidentiality. To decrease liability, school health personnel must ensure that the policies and procedures of the school district reflect current standards of care (Schwab, 1991).

Students with Special Health Needs

Five to 20 percent of students have special needs, depending upon how disability is defined. The passage of PL 94-142 in 1975 ensured that all handicapped children would have access to free and appropriate public education. Students who have a chronic health condition or who are developmentally delayed require an assessment to determine the least restrictive educational environment. This information is conveyed to the school staff as the Individualized Educational Plan (IEP). The need for the participation of the school nurse in the development of the IEP was identified in PL 94-142. Seventeen states mandate that the school nurse be a part of the team that develops the IEP (Lovato, Allensworth and Chan, 1989).

In addition to the IEP, the Task Force on Standards of School Nursing Practice (1983) suggests that an Individualized Healthcare Plan (IHP) be developed to organize and document the delivery of services, procedures and technical assistance to students with health needs to promote their optimal well-being and functioning during the school day. The IHP documents the nursing process in the school setting. Included in the IHP are nursing assessments, nursing diagnoses, nursing interventions and outcomes (Hass, 1993).

Students who would benefit from an IHP include those with chronic and/or complex health problems and those with any special need that might impede learning. The objectives, performance standards and strategies for health and developmental screening are detailed in Figure 8.

Transitioning Students with Special Health Needs

As a part of the Individualized Educational Plan (IEP) developed for special education students, the Individualized Healthcare Plan (IHP) or Health Management Plan (HMP) documents the academic and physical program adaptations and health requirements needed for special education services. Essential to the IHP is a plan for transitioning youth as necessary. Examples of transitions common to many students with special health needs include

Figure 8

Goals and Objectives: Health and Developmental Screening

Objective

- Assist in appropriate educational placement of children with special needs.
- Develop and implement individual Health Management Plan (HMP) to assist school personnel to consistently meet special care needs.

Performance Standard

- Comprehensive health and developmental history is on file.
- Current medical information is available regarding special needs.
- Parents involved in identification of needs and realistic intervention plans.
- Health professional available to monitor special care procedures.
- Interpret student's health data to staff and parents.
- Staff kept advised of changes in condition and of any need to change health plan.

Strategy

- Actively participate in staffing committee.
- Prepare summary of pertinent information from developmental history and medical records.
- Involve student and/or family in development of plan.
- Provide teacher/staff inservice regarding the student's health management plan.
- Assess home environment to determine students' usual coping behaviors.

Evaluation

- Children with health-related special needs are appropriately placed.
- Nursing care plan (IHP) or health component is on file and is reviewed at least annually.
- Teachers and staff demonstrate acceptance of health plan.

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Figure 8 (continued)

Goals and Objectives: Health and Developmental Screening

Objective

- Meet physical and psychological needs for students with handicaps to learning.

Performance Standard

- Policies covering medication and emergency needs are written and revised annually.
- Written emergency plans include details for handicapped students.
- Physical plant adapted for special needs.
- Student/nurse conferences are scheduled as needed.

Strategy

- Provide opportunities for students/families to share feelings regarding their handicapping conditions.
- Develop resources in health care community to help school meet special needs of students.
- Provide and/or supervise special health care procedures that will permit student to remain in the least restrictive environment.

Evaluation

- Students integrated into the least restrictive environment.
- Adaptations made to minimize effects of student's disability.

Objective

- Help student take the responsibility for managing his/her condition or providing self-care as soon as possible.

Performance Standard

- Written Health Management Plan exists for teaching self-care, which is revised as goals are met.

Strategy

- Provide opportunity for student to practice self-care under supervision.

Evaluation

- Student achievement of self-care practices that are attainable.

transition from hospital to school and school to hospital, from one school district to another, from elementary school to middle school to secondary school, and/or from high school to vocation or further schooling and adulthood (Hertel, 1991).

Knowledge of the disability and available community resources, as well as an understanding of the perceived needs of the student and his or her family, is essential to developing an effective program for transitioning youth with disabilities. Using a team approach to plan present and future care maximizes continuity of care, especially if the team consists of parental caregivers, health care providers, school administrator or designee, school nurses, other professional health care providers and the student, if appropriate (Hertel, 1991).

Parental Involvement

Ideally, school nursing has always viewed the family, not just the child, as the primary unit of care. The need for involving parents in the educational program of their children has been identified by a number of educational studies (Solomon, 1991; Perry, 1991; Werch et al., 1991; Perry and Crockett, 1987). The health services program also has recognized the need for renewed commitment to parental involvement (Rohrbaugh and Rohrbaugh, 1990).

Included within the definition of family are the child's caregivers as well as the "school family." Creating a bridge between these two families is essential when a health or behavior problem arises. This system's approach to school health assumes that a student's problem does not occur in isolation, but is embedded within the social environment. Rohrbaugh and Rohrbaugh (1990) provide the following guidelines to include families within the school health service program:

- Involve and empower parents as experts on their children.
- Emphasize parental competencies rather than deficits.

- When necessary, make home visits to involve disengaged or hard-to-contact parents.
- When parents are unavailable, look to extended family or neighbors as potential sources of support.
- Encourage teachers to deal with students and parents directly before turning a problem over to specialists such as the school psychologist, guidance counselor or outside therapists.
- Do not disqualify or contradict a parent or teacher in the presence of a child.
- Use a go-between role to defuse conflict and promote cooperation between parents, teachers and other helpers.
- With psychosocial issues, avoid challenging parents directly by pointing out dysfunctional family dynamics or defining your work as "counseling" or "therapy" (even when it is).

Medication

While drug use among children and youth has been the focus of many educational campaigns in the United States, the nation has overlooked another drug problem: improper use of legally prescribed, legally dispensed prescription medicines for school-age children. A 1989 report found that children of all ages take both a large volume and a wide variety of medicines. More than six million children have chronic diseases that require regular medicine. About 13 million children take prescription medicines in any given two-week period.

Unfortunately, up to half of the children who take medicines are not using them properly. In ten studies of children's medicine use, the average rate of adherence was only 54 percent, similar to that of the general population. The tendency not to follow treatment holds true even for chronic illness and life-threatening illnesses such as cancer and kidney transplants. Although medicine use problems exist among children of all ages, adolescents are more likely not to take medicines as prescribed (National Council on Patient Information and Education, 1989).

Four types of improper medicine use occur: (1) stopping a medicine too soon, (2) not taking enough of a medicine, (3) taking too much of a medicine, and (4) refusing to take a medicine. The consequences are serious and include dangerous health outcomes, inadvertent treatment errors, life-threatening adverse effects, unpleasant side-effects, unnecessary diagnostic and treatment costs, and great risk of accidental poisoning. Most medicine regimens necessitate taking medicine during the school day. As a result, school personnel face a number of important issues, including liability risks, designation of persons to administer medication, ability of school personnel to recognize medicine-related problems, and the role of staff in educating students in safe medicine use (National Council on Patient Information and Education, 1989).

A review of state mandates in school health revealed that no state mandates instruction in safe medicine use. Only 28 states had a policy that governed the administration of prescription medications, while 17 states had a policy that governed the administration of nonprescription medications (Lovato, Allensworth and Chan, 1989). Coherent policies that allow students to continue necessary medicine regimens, nurses and teachers who are competent to monitor medication use and recognize untoward effects, and instruction within the formal and informal curriculum on safe medication use are sorely needed.

Future Challenges and Opportunities

Oda (1991) describes school nursing as unique in that it occurs in an educational setting as opposed to a medical setting, treats a primarily well population, and may be provided with a professional staff of one nurse per building who may or may not work under the supervision of a physician. While many of these characteristics unique to school nursing may remain constant, Oda believes that school nursing practice in the future will be characterized by focus on prevention through collaboration, management skills, computer literacy, activism and research and that the services will be provided by a baccalaureate prepared nurse.

Collaboration between schools and local and state agencies, schools and parents is key to providing a single point of entry for essential services needed by students. Increased activism for the purpose of influencing health policy might be necessary if the school nurse is to serve as the children's health advocate and coordinate the needed services. Investigations documenting the effectiveness of school nursing interventions can provide the documentation needed to enable school nurses to become activists for child health locally.

The school health services component of the comprehensive school health program is evolving. There is interest shown by both health and education leaders in increasing the quantity and quality of health services provided to students. At one time, it was believed that locating a school-based clinic within the school would automatically solve some of the problems affecting children and youth—particularly those problems labeled as social morbidities.

There is no doubt that school-based and school-linked clinics can provide quality medical care to those students with no regular source of care (Donovan and Waszak, 1989). However, in reducing unintended adolescent pregnancy or substance use, multiple interventions by multiple disciplines within the school and community are more likely to be successful. The school-based or school-linked clinic is fundamental to programming, but it is only the first step. The clinic staff must join with students, parents and other professionals to develop proactive interventions based upon behavior change research (Allensworth, Symons and Olds, in press).

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Chapter 8

Integrating School Counseling and Health Education Programs

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School counseling has changed dramatically in the last decade. The stereotypical high school guidance counselor, or dean of students, sitting in an office waiting for the next crisis, is slowly becoming a picture of the past. As our culture becomes characterized by diverse and ever-changing values in the home, community and school, it is apparent that the societal structure of the past will not suffice to prepare students for their futures. This insufficiency is reflected in considerable increases in substance use, suicide, child abuse, teen pregnancy, truancy, school dropout and random acts of violence. For example (Children's Defense Fund, 1990):

- Every day, 100,000 children are homeless.
- Every school day, 135,000 students bring guns to school.
- Every day, six teenagers commit suicide.
- Every day, 2,989 American children experience divorce in their families.
- Every eight seconds of the school day, a child drops out.

- Every 47 seconds, a child is abused or neglected.
- Every 26 seconds, a child runs away from home.

Several years ago, school counselors, faced with the increasing multitude and severity of such problems, realized that the number of trained professionals available to help these children could never meet the demand. Therefore, a deliberate change took place that shifted the school counseling emphasis from treatment and remediation to prevention. The following parable illustrates the evolution of thinking that changed school counseling.

> A nationally recognized school of excellence was known for its many programs designed to save students. A wise man, hoping to learn from that success, decided to visit the school. As he approached, he saw that the school was by a river, and many children were being swept away by the strong currents. The principal was out by the river, pulling children out of the torrent, one at a time. The school counselor, the school nurse and the classroom teachers were also running out to help save the drowning children, one at a time. The wise man said, "Indeed, you do have many ways to save the children. But has anyone gone upriver to see who is throwing them in?"

"Going upriver" is prevention. School counselors realized that a systematic, planned program of prevention must be instituted in the schools, or increasing numbers of students would drown in the violent river of societal ills. They also realized that this program must be initiated at the child's earliest point of entry into the system. Thus was born the movement to place school counseling programs that emphasize prevention and early intervention into the elementary schools. This movement brought about the development of a comprehensive model of school counseling, based on developmental principles, that is slowly working its way through the intermediate level to the high school. This model will be described in detail later in this chapter.

Concurrently, health educators were feeling similar frustrations. Most formalized health education programs were placed at the high school level, usually in the form of a required, one-semester course. Health professionals knew that this was too little, too late.

A knee-jerk reaction to some of the biggest problems brought special programs into schools under categorical funding for drug and alcohol education, HIV/AIDS education, suicide prevention, teenage pregnancy prevention, dropout prevention, etc. Each program operated separately but used the same foundation—teaching the primary prevention skills of communication, decision making, responsibility, self-discipline and other facilitative skills that could help young people deal with everyday issues of life. Healthy self-esteem, built on a solid base of interpersonal skills, was seen as the foundation for success.

Health educators came to the same conclusion as school counselors. Prevention education, comprehensive in nature and encompassing the skills and information vital to wellness, is the only plausible strategy that holds any hope for the future. Health educators also realized that such a program must begin early and reach all students.

Opportunities for Cooperation

Two programs—counseling and health education—similar in nature and purpose, developed at approximately the same time. Integration of these two approaches avoids duplication of services and the risk of confusing the student. Cooperation and coordination between school counseling programs and health education programs will strengthen both approaches and benefit the student. Common areas of emphasis as well as support strategies can mutually enhance each program. For example, the topics listed in five comprehensive health education content areas have corresponding areas in comprehensive school counseling:

Foundations for Health. The topics of mental/emotional health, self-esteem, communication, relationships/friendships, responsibility, self-discipline, stress management, ethnic and cultural diversity and similarities, morals and values, refusal skills and decision making are all important topics for guidance curriculum.

Personal Health and Nutrition. Counselors stress the importance of body image as part of the total self-concept and encourage mental and physical fitness. They also refer students with eating disorders or other personal physical problems to agencies or private practitioners.

Substance Use and Abuse. This topic is one of the primary points of counselor intervention as well as education.

Family Life and Sexuality. School counselors are particularly sensitive to these issues as they help students relate their feelings to their choices.

Injury Prevention. Decision making is related to all kinds of self-destructive behavior. Suicide prevention is a major area of concern for school counselors when working with adolescents. Negotiation and mediation skills are often part of a curriculum to help students relate to the people and forces that put pressure on them instead of reacting in violent ways.

In other words, school counselors and health educators definitely agree on the areas of education necessary to help young people become healthy adults.

Because comprehensive health education programs and comprehensive school counseling programs share many goals, the two programs have many opportunities to reinforce and support each other. Comprehensive school health programs often emphasize the physical, mental and emotional factors affecting health. However, they cannot ignore the social context within which health decisions are made. Because school counseling programs approach student health from this social context viewpoint, they can offer valuable insight and support to school health programs.

For example: The family life and sexuality component of a comprehensive health education program would want to ensure that students have accurate information about reproductive health, pregnancy and birth. However, students must also understand the social consequences of teenage pregnancy and learn skills to resist peer pressure to become sexually active. This social context can be amplified by a comprehensive school counseling program. Both approaches are important to student understanding and provide a valuable opportunity for co-teaching.

The same type of cooperation could occur in the area of substance use prevention. A health education program might offer information on the effect of drugs on the body, but it would also need to help students understand why people take drugs and develop strategies to combat peer pressure around drug use. The school counseling program could augment and reinforce this understanding and skills learning.

A Developmental Comprehensive School Counseling Model

As school counseling and the new model of programming evolved, emphasis changed within the programs. The new assumption is that effective prevention requires that *all* students be reached, which cannot be done on an available service basis. The emphasis therefore changed from reactive to proactive. The counselor's responsibility now extends beyond "being there" for students with problems or special requests to establishing a comprehensive program to meet the needs of all students.

Even with excellent counselor/student ratios, seeing students individually is not always practical. The reality is that most counselors have ratios of 350 to 1 or more. Some elementary counselors have workload responsibilities of 1000 to 1 or more, usually in multiple schools. Therefore, for efficiency and effectiveness, counselors work more with groups, both classroom size and smaller, than with individuals.

Even in groups, it would be impossible to reach all students without additional help. School counseling programs therefore emphasize a team approach—a team that can include health educators, school social workers, school psychologists, school nurses, special education staff and classroom teachers. Using the "whole child" approach, school counseling programs endeavor to

Figure 1

Changes in Emphasis
Comprehensive Counseling Programming

Students with problems ➡ *All* students

Services ➡ Program

Reactive ➡ Proactive

Sole provider ➡ Coordinator/manager

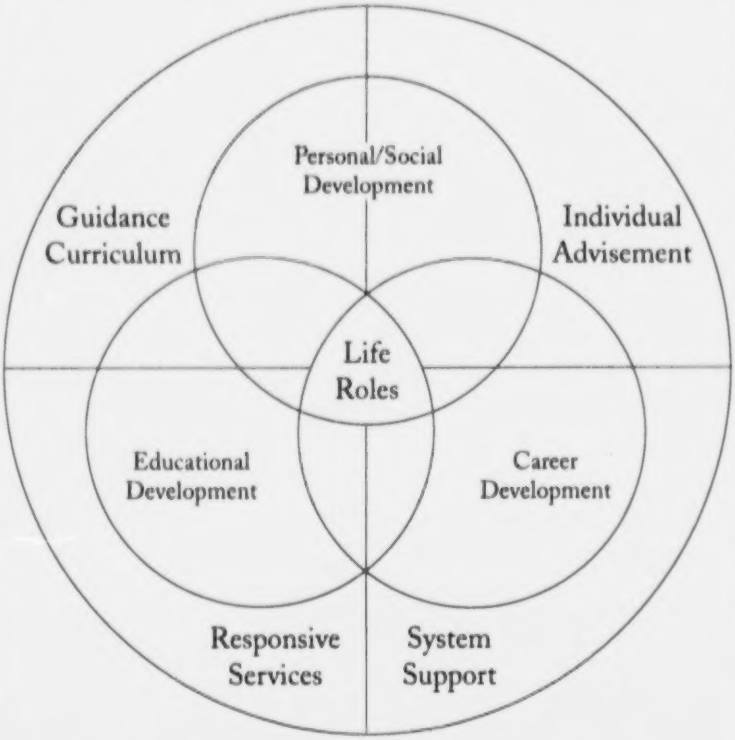
bring together all efforts to enhance the child's learning in an integrated, coordinated program. The school counselor, no longer able to be a sole provider, becomes a manager or coordinator of services.

A widely accepted model of the structure of the varied responsibilities of school counselors divides the program into three domains and four components (Gysbers and Henderson, 1988). School counselors work with the personal/social development domain, educational development domain and career development domain of all students. (See Figure 2.)

The personal/social domain, learning to live, is designed to help students become more aware of who they are and how they can effectively interact with others. The educational domain, learning to learn, involves efforts to help students become more aware of how to realize their achievement potential while in school. The third domain, career development or learning to work, helps the student become more aware of how to plan for life after school. These domains are interrelated and, being in an educational setting, are all aimed at the common goal of enhancing the learning of each student.

For example, educators know that a hungry child cannot concentrate on words in a book, or that a child under stress will not be receptive to learning that does not alleviate that stress. Therefore, personal/social issues are intricately entwined with educational issues. In the same sense, students need direction in their lives if school courses are to have any relevance to their futures. Career development, what they are going to do with their lives, is a motivator to learning. One model of implementation for school counseling programs is through the structure of the four components of guidance curriculum, individual advisement, responsive services and system support.

Figure 2
A Developmental Comprehensive School Counseling Model


Personal/Social Development
Guidance Curriculum
Individual Advisement
Life Roles
Educational Development
Career Development
Responsive Services
System Support

Source: New Hampshire Guidance and Counseling Project.

Curriculum

Curriculum refers to a planned program of teaching life skills, usually to classroom-sized groups. The purpose of the curriculum is to establish a continuum of skills and practices, based on developmental stages, that provides students with a sequential learning program of what are commonly known as the primary prevention life skills. These skills include self-esteem, communication, problem solving, critical thinking, dealing with peer pressure and relationships, stress management and decision making. For example, an elementary counselor might co-teach with a primary level classroom teacher, or perhaps the school nurse, a personal safety unit on "Good Touch, Bad Touch." At the intermediate level, that lesson would be centered more on appropriate touch, sexual abuse and ownership of one's body, while the high school student might be more involved with decision making regarding sexuality and relationships.

The developmental process goes from receiving information, to understanding, to application. The curriculum component of a school counseling program assumes that there is a planned, sequential delivery system to meet group objectives based on developmental stages. The methods used within the group may range from lecture to small group interactions and discussions. Although experiential learning is of great value with such topics, personal revelations are not encouraged because confidentiality cannot be ensured in a large group. However, classroom discussions can give students a common foundation for their own decision making.

Individual Advisement

The second component of a comprehensive school counseling program is individual advisement. Even though information can be given and processed in large groups, there comes a time when all of this information must be related to the individual. This function is most often related to choosing classes, career decision making, post-secondary education and/or training plans. The counselor works with students and/or their parents to interpret all of the information that is known about them to help them make informed educational or career decisions. This work often involves explaining forms of assessment as well as school records and self-reported information. Individual advisement, like curriculum, should be planned and purposeful. A schedule of individual appointments at critical points of a student's schooling should be a regular component of a student's educational experience.

Responsive Services

The area in which school counselors have traditionally been most active is that of responsive services. Responsive services are defined as those activities that are performed in response to a requested need. Strategies include individual and small group counseling, referral and consultation. This part of the comprehensive program cannot be planned because it is dependent on the needs expressed at any given time. For example, the death of a student might elicit a widespread need to help individual students handle their grief, to see students in small or large groups to process the event, to consult with teachers concerning class discussion of the death, to advise on appropriate memorials, or to relate the death to a learning experience. None of these activities could have been planned in advance, but they all take priority over any other activities.

Counselors often ask how they can be scheduled into classrooms for guidance curriculum when they must be available for such events. At this point, counselors must confirm their commitment to prevention strategies, because there will always be crises. With few exceptions, such as the one above, most "crises" can wait 45 minutes to be handled.

One junior high counselor has had to leave her classroom sessions fewer than a dozen times during ten years to respond to crises such as suicide attempts or threats, the death of a student or telling a student about the death of a family member, or a student's violent behavior. Nearly all other crises could be delayed by giving the student a quiet place in which to wait for the guidance class to end. If students were extremely upset, the secretary sat with them until the counselor could arrive. This waiting period often proved to be beneficial to students by giving them time to reflect upon the situation and perhaps resolve the problem themselves. The important issue for students is being assured that someone will respond to their needs.

System Support

System support involves those activities through which the school counseling program is managed and enriched and the total educational program—of which school counseling is an important part—is supported. This support includes strategies related to planning, evaluation, professional development, public relations and committee functions.

Program Emphasis According to Educational Level

Although the goals and structure of a school counseling program may be similar at any level, the emphasis may change to meet the developmental needs of students. A truism of prevention is that the earlier a healthy behavior can be established, the better the chance of success in keeping it. The primary prevention skills must be taught to elementary school children.

Elementary Level

A majority of the elementary school counseling program is devoted to prevention through classroom guidance and early intervention in problems that may hinder learning. Very little individual advisement occurs at the elementary level.

The emphasis of system support is on the involvement of parents and classroom teachers in both the support and reinforcement of the teaching of primary prevention skills and attitudes and in attacking any problems that may be an obstacle to the child's learning. Parent education programs might be established to help parents help their children learn the lessons necessary to become responsible adults.

All efforts at the elementary level are focused on helping the child to develop healthy habits—physical, mental and emotional—through the supportive cooperation of the school and home. Elementary school counselors spend most of their time in cooperative teaching or consulting with teachers and parents.

Middle School Level

The early adolescent at the middle school level is beginning the journey from the dependence of childhood to the independence of adulthood. Relationships with parents, family, other adults and peers become the obsessive task of growing up. The push/pull of dependence and independence with the parents often causes tension in the home, as 12 and 13 year olds prefer to be thought of as orphans when hanging out with their peers.

James Garvin, a guru of middle-level education, described the process of adolescence as having one foot on the pier of family stability and the other in the boat of peer relationships. Much rocking and instability occurs before the adolescent is firmly in one place or the other. Therefore, the school counseling program at the middle level concentrates on helping young people understand what is happening to their feelings and their bodies and on building on the strong influence of the peer system.

Classroom guidance is usually less structured and small group interaction is the preferred method of delivering a message at this level. As students are trying to work out their new identities, they can try out different roles in the safe environment of a caring classroom. Earlier teachings can be reinforced at a deeper level of understanding.

Middle schools structured around teams provide ideal environments to involve the classroom teacher, counselor and students in meaningful discussions. Curriculum is still important, but the delivery may be through classroom teams, peer leaders or innovative forms of drama or music. For example, a group might write a rap to tell the story of how peers try to get a friend to smoke or drink and how the friend uses refusal skills, learned in the elementary grades, to assert his or her right to make decisions.

Individual advisement begins to take on more importance as the middle-level student considers both future academic and career choices. Self-analysis is an important part of the decision-making process as emerging adolescents begin to narrow the focus of their interests and recognize their talents. Information can be delivered in a large group, but students need to confer with a caring adult to relate the information relevant to their personal lives.

Responsive services also gain new importance as young people struggle to understand themselves in relation to the world. Lack of experience and fear of rejection magnify the smallest problem of the adolescent to gigantic proportions. The middle school counselor must be extremely patient and tolerant, remembering that the present issue is a very real problem to the student, even though it may seem trivial to an adult.

System support also takes on new meaning as young people communicate less with their parents. The school counselor can again offer parenting groups to offer understanding and support to parents of adolescents. Parents want to find out what is happening at school since their children may not be communicating with them. Continued parental involvement is important, although it may be done in less obvious ways. Parents and teachers also want to be assured that the time spent in life-skills learning and group work is valuable, so accountability and evaluation of the program become very important.

High School Level

The secondary school counseling program is the most familiar and the most tradition-bound of all levels. Classroom guidance is still an important part of the program, but it tends to center on application of previous learning to the real world of the student. For example, communication skills might be used to practice résumé writing or interviewing for jobs or college acceptance. Decision making is serious business as the young adult faces life decisions. Conflict resolution might mean the difference between a student living at home or running away. Students still need a forum in which to discuss their issues, but this is more often accomplished by the establishment of small groups of peers, led by a counselor and/or peer facilitator. Individual advisement becomes the primary emphasis of the school counseling program, as personal information and options are considered in assisting students to make informed decisions about their futures.

Responsive services take on more serious tones as one considers the statistics of adolescent suicide, violence, teenage pregnancy and school dropout. Individual or small-group counseling, combined with appropriate referrals, are common interventions. School counselors receive the same basic counseling preparation as mental health counselors in community agencies. However, because of time and/or priorities, school counselors are encouraged to refer students needing long-term counseling to private or agency counselors.

System support at the secondary level consists of planning, evaluating and promoting the programs that will benefit students most. Counselors can be effective advocates for students by using a systems approach to improving the overall learning environment in the school.

The functions most closely associated with the high school counselor have not yet been mentioned. Over the years, high school counselors have become schedulers and test administrators (administrative duties) and record keepers (clerical duties). School counselors should help students make decisions about their academic choices, but this task is different from the task of scheduling. School counselors are trained to interpret assessments and to assist students and their parents in using that information to make educational decisions, but test administration is a time-consuming, routine task. Records are important to the counselor in individual advisement, but keeping the records up to date does not require a master's degree in counseling.

One of the difficulties in changing secondary programs to direct greater effort toward prevention is the number of noncounseling duties that have often been assigned to the guidance department. As more and more counselors are trained in the comprehensive model, and as more and more administrators understand the depth of counselor training, high school programs will become more student-oriented and less administrative. Some state legislatures, impatient for change, have enacted laws requiring all school counselors to devote 75 percent or more of their time to direct services.

School counseling programs at all levels deal with the personal/social, educational and career development domains. All levels are structured to deliver comprehensive programs developmentally appropriate for all students. Most programs utilize the four components of guidance curriculum, individual advisement, responsive services and system support. The differences are in the degree of emphasis important at each level.

Guidance curriculum, teaching primary prevention skills and attitudes, is most important at the elementary level and decreases in time priority at the high school level. Conversely, individual advisement is negligible at the elementary level but is very important at the high school level. Responsive services differ in the severity of the issue and the primary recipient of the service—parent or student. System support remains important throughout all levels and may differ only in the degree to which each activity is practiced.

Working Together: Counseling and Health Education

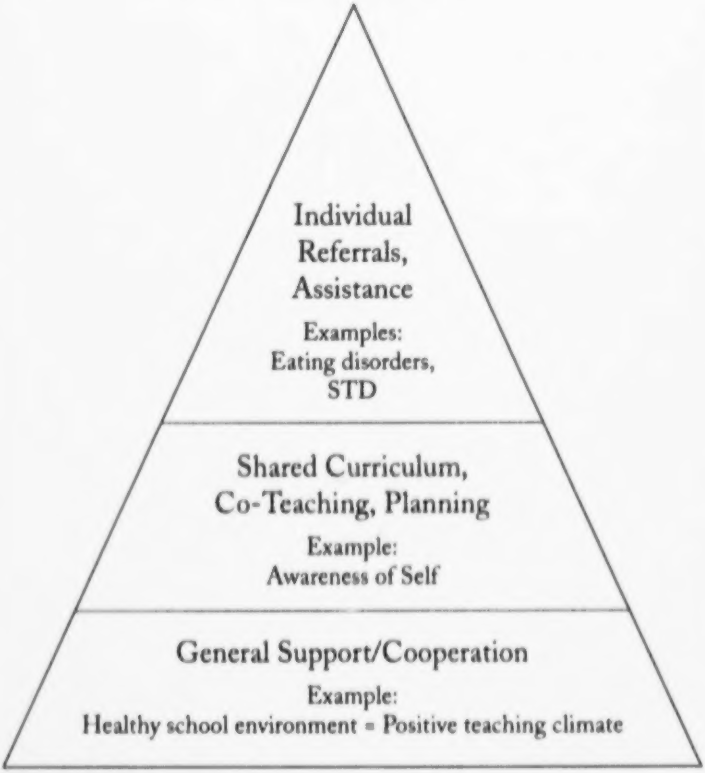
There are basically three areas in which health educators and counselors can cooperate to develop a strong, integrated program to benefit each student. The main objective of any cooperative venture is to put together the most efficient and effective way of assisting young people to become healthy adults. Figure 3 illustrates three levels of integration between school counseling and health education programs.

Curriculum Delivery

One area is the delivery of curriculum. If the counselor and health educator co-teach a common curriculum, such as enhancing self-esteem through self-awareness, the unit could be jointly planned and the division of responsibility assigned. Both might be present for the session, with one person taking the responsibility of lead teacher, or they might decide to teach separately, but in a coordinated unit.

Another approach is to team teach a common curriculum by teaching together but from different perspectives. A prime opportunity to do this might be in the sexuality and family life unit. The health educator might teach about sexually transmitted disease—transmission, symptoms and steps for treatment. The school counselor could augment and reinforce the social context within the same unit. The counselor might work with the teachers to help

Figure 3
Health Education and Counseling Levels of Integration


Individual
Referrals,
Assistance
Examples:
Eating disorders,
STD
Shared Curriculum,
Co-Teaching, Planning
Example:
Awareness of Self
General Support/Cooperation
Example:
Healthy school environment = Positive teaching climate

Source: Maine Department of Education.

students consider the types of decisions being made at each point in the process and how each decision could change the consequences, explaining the effect on the individual within the social context.

Another approach to giving young people important information concerning their bodies and themselves is to teach separate curricula but coordinate and communicate so that one perspective is reinforcing the other. With this approach, the counselor and health educator must communicate frequently to present a unified approach and ensure that students are receiving reinforcing messages.

Referrals and Assistance

The cooperation between the counselor and health educator can extend beyond collaboration in the classroom. Often, students might confide personal information related to a class topic to a health educator. The health educator may feel that the student needs professional counseling and may refer the student to the counselor. The student has the ethical and often legal protection of privileged communication when engaged in a counseling relationship with a professional, protection that cannot be guaranteed with another caring adult. Therefore, a cooperative relationship between the health educator and the school counselor can ensure that the student gets the necessary help.

Health educators are often in a position to observe behaviors when certain topics are addressed in class. They may suspect that a problem exists and may choose to consult with the counselor about their observations. Sharing concerns about students can be a powerful intervention that might make a difference in a student's life. Sometimes, especially in the lower grades, health educators and counselors have concerns that need to be shared with the parents. A team approach to such conferencing provides a very supportive atmosphere.

Occasionally, a health educator may introduce a topic in which a number of students show unusual interest. Because of curricular demands, the health educator may not be able to stick to that topic or may feel that continuation of the discussion may not be in the best interest of the entire class. The teacher may suggest to the counselor that this would be a good topic for small-group counseling.

Finally, if referral of a student to an outside agency is appropriate, the health educator and the counselor, working together, can coordinate with the agency so the student accesses necessary services with as little disruption to her or his educational program as possible. Since both positions may use outside agencies for education and referral, counselors and health educators can share information about services and staff that may be useful to the school.

Schoolwide System Support

System support is an area in which school counselors and health educators can be especially powerful working together. Schoolwide system support provides the broad base for cooperation, which can then extend to classroom curricula and referrals and assistance. Wellness in the workplace is an acknowledged benefit for employment, yet few schools make concerted efforts to establish such an environment for their staff. School counselors and health educators are logical staff to initiate healthy lifestyle activities such as before-school aerobics, nutritional lunches, lunchtime walks, meditation rooms, stress-reduction clinics and teacher support groups. Healthy employees have fewer absences and are more productive. School teachers, in particular, tend to work in isolation and need the encouragement and support of fellow workers. Wellness in the workplace for school staff is good business.

Of course, schools are supposed to be healthy places in which to learn. The creation of a healthy school climate should be the concern of all staff, but it is often overlooked in the hustle and bustle of everyday activities. School counselors and health educators are more often attuned to the big picture and can spot systemic problems that might be interfering with learning. For example, the strategy of assigning seats in the middle school cafeteria may be a good management decision, but it is depriving emerging adolescents of their great need to socialize with chosen friends at one of the few times when such behavior is acceptable in school. Helping administration and staff to understand the developmental needs of students is a step in creating a healthy learning environment.

Health educators and counselors can work together to provide inservice professional development for staff concerning topics such as adolescent sexuality or the effect on children of living in homes where substance abuse is prevalent. Those trained in such areas often lose sight of the fact that others may not be at their level of competency.

Since school counselors and health educators share so many common concerns and areas of instruction, they should also share support by serving on each other's advisory committees. A counselor on a health education advisory committee can be a supportive voice when sensitive issues arise. Parents and community members cannot be expected to understand all the subtleties and interrelatedness of health education topics. They may also not be aware of a need that exists within the student population. The health educator and school counselor can support each other in helping to educate noneducators.

This supportive relationship can reach beyond advisory committees. Every effort must be made to reach out to community members and help them understand the relationship of a healthy lifestyle to learning. Many parents feel that time taken for subjects such as health or guidance is of little value and would be better spent in math or science.

Without negating the importance of strong academics, it is important to demonstrate that increased time in a subject will not be productive if students feel that they cannot do the work or that they are stupid. Good math skills will not be of prime importance to a student who becomes HIV positive. The teenage mother who is facing overwhelming medical bills may not be able to concentrate on social studies. An angry adolescent, not knowing better ways to resolve problems, may become violent or self-destructive.

School counselors and health educators can be a powerful team in promoting the value of primary prevention to PTAs, Rotary Clubs and other community groups. In fact, the teaming of health educators and school counselors in collaborative and cooperative endeavors can create the synergy to help schools educate the whole child.

A Common Goal

School counselors and health educators share a common goal—assisting young people to develop the healthy lifestyles necessary to become productive adults. They share a concern for the "whole child" approach, realizing that all facets of a person must be developed in balance. Health educators and school counselors are well aware of the effect of personal issues on the academic performance of students. Therefore, they must team together to advocate for the nonacademic portion of the curriculum.

Although health educators and school counselors share many of the same areas of concern, they may approach the subject from different perspectives. If communication and cooperation are the basis for integration of the school counseling program and the health education program, the entire school will benefit. A wellness approach to both the work and learning environment will create a climate in which each person is free to reach his or her full potential. We have a serendipitous window of opportunity to combine two vital programs, health education and school counseling, into a powerful force to create a brighter future for our young people.

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Chapter 9

Health Promotion at the School Worksite

Judy C. Berryman, MA

Worksite wellness programming in schools can no longer be thought of as a luxury. With the alarming increase in health care costs in the United States, it is time to develop healthier lifestyles—lifestyles in which individuals assume a preventive stance and take more responsibility for their own health status. What better place to start this new thinking than in the schools?

If all the personnel employed by U.S. public schools were combined, this new "business" would be one of the largest corporations in the country. Improving the lifestyles and health habits of such a substantial portion of the work force can positively impact national health-care costs and stretch local taxpayer dollars. The faculty and staff of most school districts mirror the rest of the U.S. population, with similar health problems. Hypertension, obesity, cigarette smoking and sedentary living habits are common, and premature mortality, especially in men, is a major problem (Tager, 1985). Wellness programs that target these health areas can and will provide positive health benefits.

Since school districts usually provide medical care benefits, costs due to premature illness and death are borne by the districts. Coupled with the direct cost of health insurance are the indirect or hidden costs of absenteeism, disability, turnover, decreased productivity, and faculty and staff recruitment/replacement costs (Iverson and Kolbe, 1983).

Growing evidence now indicates that lifestyles associated with chronic disease in adulthood are the result of habits learned early in life. Programs designed to focus on changing these well-defined "bad habits" need increased attention if changes in the outcomes are desired.

School sites are ideal for the provision of health promotion and education for one simple reason: schools are where the children—the next generation—can be found. The many adult workers in the schools serve as role models for the children they teach, making schools ideal places for worksite health promotion. When these adults practice good health habits, they teach healthy living to their students.

Wellness programs in educational settings are on the increase in the United States largely because school personnel are voicing concerns about physical disability, burnout and perceived lack of emotional well-being. Wellness programs have been demonstrated to improve employee morale, reduce absenteeism, increase job satisfaction and generate greater productivity (Kaldy, 1985). School-based wellness programs can and do affect the bottom line by reducing health care costs and absenteeism while increasing productivity and school staff effectiveness. More important, these programs can improve the quality of life on and off the job (Blair, 1984).

The wellness concept assumes that we are born healthy and usually stay that way unless we are unduly influenced by the home setting during infancy or by our own actions once we are old enough to be responsible for our behavior. Environmental factors and natural wear and tear of life also play a role, but often in the United States lifestyle has a significant impact on health. A 1980 W. K. Kellogg Foundation report discovered that 48 percent of U.S. mortality is due to unhealthy behavior or lifestyle, 16 percent to environmental hazards, 26 percent to human biological factors, including heredity, and 10 percent to inadequacy in the existing health care system (W. K. Kellogg Foundation, 1980).

Health promotion is defined as "any effort used to motivate, educate or provide resources that can improve individual and societal health by reducing health risk and increasing opportunities to satisfy personal, social and environmental needs" (Green and Krueter, 1991). The major areas of health promotion include wellness, risk reduction, self-care, self-help and fitness.

Health promotion and disease prevention may comprise the best opportunity to reduce the ever-increasing portion of resources spent to treat preventable illness and functional impairment. Smoking, for example, is the single most preventable cause of death and illness in the United States. Smoking-related illnesses cost our health-care system more than $65 billion annually (U.S. Department of Health and Human Services, 1991).

Today, most health promotion programs include physical fitness, but also address stress management, nutrition, smoking cessation, hypertension, control of alcohol and drug abuse, and safety. Some programs include professional development skills. Results of such programs in a Dallas independent school district demonstrated a 35 percent drop in absenteeism from 8.3 to 5.8 days (American Council of Life Insurance and Health Insurance Association of America, 1986). Other outcomes of school-based wellness programs include:

- reduced smoking
- decreased weight and body fat
- decreased systolic and diastolic blood pressure
- increased physical activity and exercise
- increased use of balanced diet principles
- decreased levels of anxiety and depression
- increased sense of personal well-being
- reduced health care claim costs
- improved morale
- increased productivity
- improved instructional quality and more time on task with students

The Healthy Lifestyles Program

In 1986, the Greater Battle Creek schools in Michigan (four public and four private) embarked on a project to improve the knowledge, attitudes and behaviors of 17,000 youth in kindergarten through twelfth grade in four target areas: substance use, fitness, nutrition and stress management. After months of research, the Healthy Lifestyles task force decided that in order to change the knowledge, attitudes and behaviors of youth, all school staff and parents needed to be included in the project. With that in mind, the staff and parents were targeted for wellness programs.

The task force offered worksite wellness programming to all school staff in the initial stages of project development. The basic message that launched the program was "Your students don't just listen to what you say—they watch what you do. Teachers' actions inside and outside the classroom teach hidden lessons to students—lessons about personal goals, values, habits and attitudes that influence them long after they leave the classroom. You teach what you are. If you model good health for your children, then you should *depict* good health" (American Council of Life Insurance and Health Insurance Association of America, 1986).

Healthy Lifestyles found that a base already in place in the schools was ready to be expanded. For example:

- Many public school personnel possess skills appropriate for participation in these programs because of their backgrounds in education.
- Public schools employ many qualified people, such as nurses, nutritionists, physical educators and counselors, who can serve as resource personnel.
- Most public schools have facilities—gyms, tracks, lunchrooms, classrooms and group meeting rooms—that are available to personnel.
- The public school can provide a more convenient and supportive environment than other work settings that require busy professionals to travel across town to a fitness center.

The experiences of the Healthy Lifestyles Program demonstrate that certain steps help begin a school-based wellness program:

1. Introduce the concept to administration, board of education and union representatives.
2. Recruit and organize "wellness planning committees."
3. Research community health- and fitness-related agencies.
4. Announce the program to employees.
5. Conduct an employee interest survey.
6. Conduct committee review and select programs.
7. Develop a range of programs including evaluation and budget.
8. Review the program and establish means of financial support.
9. Announce schedule of programs.

10. Begin offering programs.
11. Evaluate the program.
12. Plan the maintenance of the program.

In the case of the Healthy Lifestyles Program, the board of education, superintendent and union representatives were convinced of the benefits of the program and supported those responsible for implementing it. Program staff held an orientation meeting with administration, board members and unions to demonstrate successful programs in other school districts. The worksite wellness program began with a letter of support from the board of education and administration to all employees.

The early involvement of represented employee groups was instrumental in the initial stages of development. The formal title for these groups eventually became "wellness committees." Membership included secretarial staff, maintenance staff, bus drivers, teachers, food service staff, administrators and board members. One individual assumed the role of program developer. Support or thanks for the efforts of the program developer came from the administration in the form of a one-year membership to a local fitness center. In one of the school districts, the administration allocated a faculty salary to support the efforts of the program developer. Committee members became the "cheerleaders" for the program. Committee tasks included program selection and planning, budget development, maintenance and evaluation.

Community Involvement

Involvement of community agencies is a significant plus in any wellness program. The use of community resources whenever possible ensures long-lasting ownership and development of personal and community pride in the wellness effort. Groups that can help include local hospitals, health departments, Y-centers, American Red Cross, American Cancer Society, American Heart Association, local parks and recreation departments, and employee assistance groups.

In the Healthy Lifestyles Program, many organizations were anxious to offer programming for school staff, but did not have the means to reach this group through area schools. Organizations also discovered that additional programs for youth developed out of the initial efforts to create school staff programs.

The wellness committees' interaction with community resources created an advisory board that included members of the wellness committees, community health agencies, media, churches and local foundations. This board offered technical assistance, funding aid, support through the media, and coordination of services through community resources. The structure of this collaborative effort is illustrated in Figure 1.

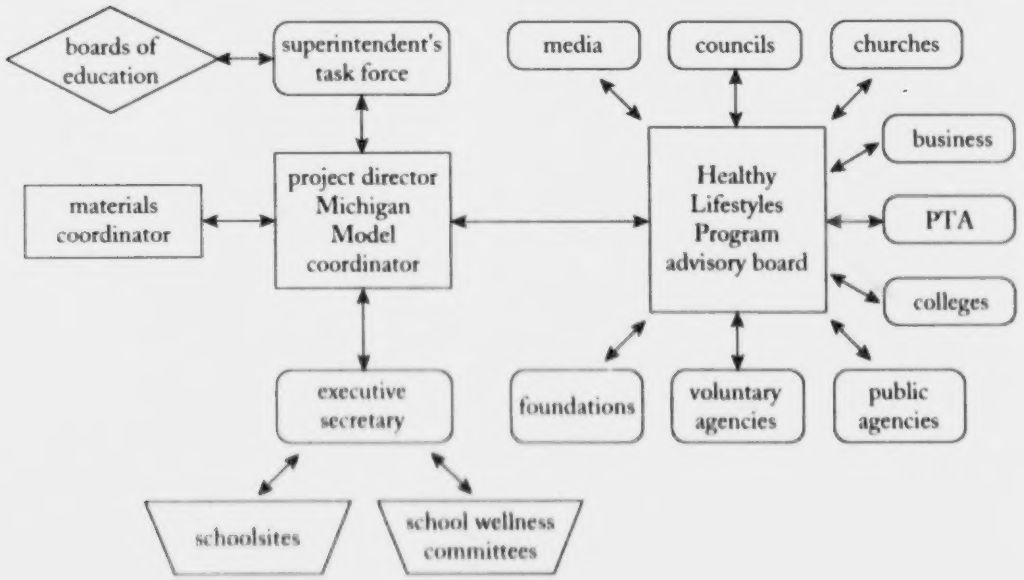
Staff Participation

To assess their needs for wellness programming, school staff were surveyed. The assessment tool included questions related to staff's basic interest in participating in a wellness program, interest areas, ideal times to offer programming, and interest in participating in the development effort. These data were used to determine programs to be offered.

Motivating individuals to take part in health promotion programs may be the number one challenge for companies or schools. Often, the employees who are in the greatest need are the least interested in participating. The Healthy Lifestyles Program used several strategies to increase successful recruiting of not only those already interested in healthy behaviors, but also those who might be hesitant to initiate the health behavior change on their own.

First, the staff created a continual flow of information from administration to staff and back to administration. This top-down

Figure 1
Healthy Lifestyles Program—Collaborative Structure


boards of education
superintendent's task force
media
councils
churches
business
materials coordinator
project director Michigan Model coordinator
Healthy Lifestyles Program advisory board
PTA
colleges
executive secretary
foundations
voluntary agencies
public agencies
schoolsites
school wellness committees

and bottom-up process of communication created an esprit de corps between administration and staff. Individuals from all levels in the schools found that they had a common interest—health. Other strategies included aggressive promotion and publicity, on-site activities, health screening for risk factors, peer-group support, and recruitment from one program to another.

The Healthy Lifestyles Program staff also published a monthly newsletter for all school staff. The newsletter included special topics in health, a profile of the "wellness person of the month" and a schedule of wellness events.

On-site activities included:

- fitness classes taught by staff personnel
- smoking cessation classes
- stress management sessions
- time management sessions
- "Over Forty and Fabulous" programs
- weight loss
- low cholesterol and fat-free cooking classes
- "Just for Secretaries"
- cross-country skiing

The project also sponsored a six-week competition called Staff Shape-Up. Staff in different buildings competed for total points. Staff accumulated points by practicing healthy behaviors, including:

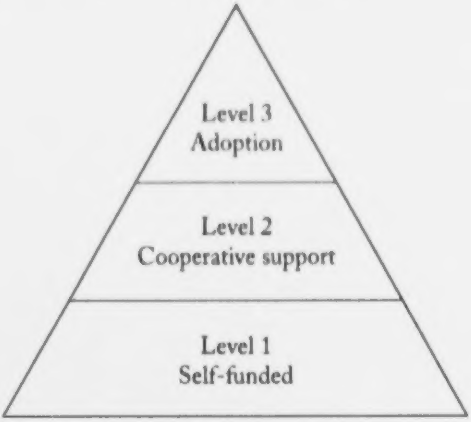
- aerobic points according to level and length of the activity
- participation in wellness classes
- weight loss
- smoking cessation
- hugging a fellow employee
- having a healthy thought

Peer support encouraged many who would not otherwise have participated to join. Participants gained confidence in their ability to succeed in behavior change and were supported to sustain the changes. The winners received gift certificates to a local shopping mall.

Every School Can Afford a Wellness Program

Whenever a wellness program is presented, especially to school districts, the first question asked is Who pays for all this and what is it going to cost the schools? The answer is simple. Everyone can afford wellness programs. The programs implemented depend on the school district's ability to support programming. The Healthy Lifestyles Program used a pyramid approach to explain wellness program funding levels. (See Figure 2.)

Figure 2
Wellness Program Funding Levels



Level 1—Self-funded programming. At this level, all costs are paid for by the participant or an outside funding source. This type of programming can include discounts for fitness classes, employee-paid programming offered in school buildings, or free classes through area organizations. Program topics include fitness, nutrition, weight control, smoking cessation, relationships, time management, parenting, personal finance and life skills.

Often, a self-funded level may create what is called "the awareness phase." At this phase, individuals become aware of their health and may have an interest in further programs. If a program remains at this level without creating enthusiasm or offering additional programs, maintenance or continued participation may be threatened. Most of these programs have little follow-up. However, if awareness programs are used in conjunction with other programs or referrals—in other words, used to create an interest in continued programming—the results are beneficial. Eventually, schools should move into the next level of support to keep the participants interested and committed to health.

Level 2—Cooperative support. At this level, payment is shared by the employees, participants and/or outside funding sources. Programs may be offered on or off the school grounds, but fees are partially paid by the school district. Programs might include fitness assessments, lifestyle inventories, smoking cessation classes and others.

Level 3—Adoption. At this stage, financial support is provided entirely by the employer. Sometimes this level is called "institutionalization," because activities and beliefs become not only programs but policies. Employers recognize the benefits of wellness programs and are willing to develop policy to support them to create a healthy working environment. Financial support maintains ongoing programming.

Level 3 creates the supportive environment that brings about and sustains long-term change in the school culture. This level of funding contributes to the goal of creating a positive environment that encourages healthy lifestyles. Examples include but are not limited to the following:

- healthy foods in the cafeteria and vending machines
- no-smoking policies
- fitness facilities
- flexible benefits
- incentive systems
- employee assistance programs
- childcare

When considering a worksite health program, the school district should not assume that all financial support must come directly from the general fund. Contributions for funding can come from concessions, fundraising and grants. Eventually, long-term payment for such programs can be accrued from reduced health care costs and reduced absenteeism.

Once the means of financial support has been established, the planning committee can begin to set time lines for programming. It can also move to create an awareness of the worksite wellness activities as well as the importance of establishing a healthy lifestyle. Appropriate communication plays one of the most important parts in continuing high interest levels. Newsletters, mailings, memos, bulletin boards and paid inserts are just a few communication methods to use.

Evaluation

Worksite health promotion programs are implemented to attain specific goals. To assess the impact of health and fitness programs and the attainment of these goals, program process and results need to be evaluated.

During the process of program implementation, progress should be monitored through predetermined measurements, measuring success against previously established standards. Specific criteria (goals) should be selected and defined. Several types of program evaluation designs exist. The type used will be determined by time, staff and available funding. The most important objective is to determine the effectiveness of the program for the individuals involved.

According to Johnson (1981), the five major types of evaluation can be described as follows:

Nominal. This type of evaluation refers to the extent to which program activities were executed in accordance with the purpose of the program. The basic question answered is whether people did what they indicated they would do, and whether the health promotion program operated as planned. A nominal evaluation has the lowest level of sophistication and typically amounts to little more than contract compliance.

Effort. In an effort evaluation, the questions asked are How hard does this group work? and How many people do they reach? The prime issue is efficiency, i.e., reaching the maximum number of people with the least amount of program expenditure.

Process. Process evaluation is concerned with the effectiveness of administrative and operational procedures. The focus tends to be internal and descriptive. A process evaluation usually involves a logical examination of existing procedures, linkages and the flow of information and authority within an organization.

Cost-benefit. The cost-benefit approach to evaluation is an effort to compare various procedures and programs in terms of their rate of return, given an equal commitment of resources. Cost-benefit evaluations have inherent value because they pose the question of how much performance is received per dollar. Cost-benefit will always be an important piece of the program evaluation. It requires the accumulation of data related to absenteeism, health care costs, numbers of individuals who have stopped smoking, time on task, and support from the community (parents) for a worksite wellness program for staff.

Effectiveness. Effectiveness evaluation provides the necessary base for other evaluative efforts. This type of evaluation is concerned with the impact of the program on the population, both individually and collectively. Measurements would include biological data from fitness assessments or lifestyle inventories. Evaluation from screening programs involves testing of employees or identifying problems or conditions that may lead to health problems in the future. This evaluation usually is personalized and involves direct contact with employees.

Screening programs identify problems and refer the employee to other resources for treatment. Screening programs may examine hypertension, physical fitness, cardiovascular functioning and cholesterol levels. They may also include diet analysis and physical examinations. Screening programs should be voluntary and on-site. In one screening program, several volunteer substitute teachers relieve teachers so they can participate in on-site, all-day screening programs that include a comprehensive fitness exam and cholesterol testing.

In general, evaluation of programs and services provides information on whether a program is progressing as planned and what adjustments are needed to put the program on the correct course to meet the needs of the school staff.

The Ripple Effect

Because of the unique structure of a school and the growing evidence that lifestyles associated with chronic disease in adulthood are acquired early in life, the school site is ideal for health promotion and education of children. A worksite wellness program in local school districts could reach out to touch the lives of millions of American students and their families.

The Healthy Lifestyles Program found that when school staff actively worked on improving their own health, these efforts spilled over into the classroom. Teachers interested in walking began walking before class, and students started to follow them. The end result was walking maps inside and outside of all buildings. Walking groups also formed in cooperation with parents as after-school programs.

School staff interested in weight loss petitioned the administration to offer salad bars in the elementary schools. All area elementary school buildings added mini-salad bars, and the students loved them. In one school district, 10,000 more plates were served, with a gain of $50,000 to the local district.

Aerobic classes became an important component of high school physical education classes. The schools adopted a comprehensive health education curriculum for all elementary schools, kindergarten through grade six, and a pilot program for a preschool health curriculum was launched. This curriculum was added because the staff felt it was an important part of a child's education.

As a result of the intensive health education and promotion occurring in the classroom, parents became involved. As parents' awareness of the importance of health for their children grew, schools began to implement extensive sex education courses with little or no conflict from outside interest groups. The parents led the way to improve and support an increase of health initiatives in their schools.

Pitfalls

A pitfall in implementing any type of program, especially wellness in schools, is the expectation of "thermonuclear" change. Kaufman (1971), in describing the limits of organizational change, set forth two conditions: The environment changes slowly and organizations adapt, or the environment changes swiftly or unexpectedly and there is an anticipated slaughter of organization. He argued that numerous changes can result in "organizational death"—not necessarily the end of the organization, but changes so vast that "it makes no sense to consider the original system still in existence."

To avoid this pitfall of change, the values and expectations for such programs must be clearly communicated to all parents, school staff, administrators and board of education members. Public schools need to change slowly and not be overcome by unreasonable expectations associated with the announcement of unattainable goals.

Change is difficult; it should generally be slow. Change can destroy an organization if it comes too quickly or if it is forced. Program changes in the Healthy Lifestyles Program were elective; staff tried to sell health and healthy lifestyles, rather than dictating their adoption.

An Exciting Opportunity

Wellness programs are growing in popularity across the United States. Americans are beginning to understand that changes in our lifestyles over the past fifty years have been accompanied not only by more expansive waistlines but also by increased incidence of heart disease, hypertension, cancer and other stress-related illness. Schools across the United States can offer those working in their districts an exciting opportunity to break some bad habits.

The pay-off for adopting healthier lifestyles is a lifetime of health benefits. Not only will staff look and feel better, they will have taught children in their communities the most important lesson of all—that we are all responsible for our own health. Health promotion programming for school staff can be developed by using the strengths of existing personnel and existing community agencies.

Support of administration and the unions must be demonstrated throughout the programming. Time during the school day should be scheduled for orientation; buildings should be opened to accommodate programming; and program times need to be appropriate for all to attend. Policies must be developed to sustain the efforts over long periods of time. Volunteer or paid facilitators need to have leadership capabilities, schedule flexibility, and knowledge of the principles of adult wellness education in the areas of nutrition, fitness, stress and substance use.

Evaluation is essential to demonstrate the success of the wellness program. Evaluation will assist in gaining continuing support from administration and school boards. It will also help adjust programs to fit the needs of the staff. Schools play a special role in enhancing and maintaining the health of their communities. Allowing all those who are models for children to maximize their health through worksite health promotion and education is a valuable part of fulfilling this role.

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Chapter 10

The Child Nutrition Program as a Partner in Comprehensive School Health

Priscilla Naworski, MS, CHES

The National School Lunch Program (NSLP) was first established in 1946 as an answer to an identified national defense problem—many of the draftees for World War II were poorly nourished. The government's response to this threat to national security was to fund a program that would provide free or low-cost vitamin-packed lunches to tens of millions of American school children.

The program also assisted the American farm industry, because it provided for the purchase and distribution of surplus farm products. Commodities such as wheat, rice, peanuts, butter and cheese were purchased from farmers who had over-production and were made available to schools for use in the preparation of the school lunch.

The program was successful in meeting both of its goals, and children were fed meals that were nutritionally balanced. Since its origin, many expansions, such as the School Breakfast Program, the Child Care Food Program and the Special Milk Program, have been added to the program, which is administered by the U. S. Department of Agriculture (USDA).

Today, with more single-parent households, more working mothers and more children living in poverty, school meal programs are more important than ever. Every school day, 24 million children sit down to food provided by their schools. For many children, this food has made the difference between going hungry and being satisfied, between being undernourished and being well fed, between academic failure and being ready to learn. For these reasons and many more, the school food service or child nutrition program is an essential, integral part of a school's comprehensive health program.

The Nutritional Content

USDA regulations establish a meal pattern that provides the student with a lunch containing one-third of the Recommended Dietary Allowances (RDA) for calories and essential nutrients for a 12 year old. The breakfast pattern provides approximately one-fourth of the daily RDA. These goals are achieved by a system that plans menus to contain prescribed numbers and serving sizes of different food groups.

The lunch pattern for a 12 year old dictates that the menu contain two ounces of protein, eight ounces of fluid milk (both whole milk and unflavored lowfat milk must be offered), a total of three-quarters cup of two or more fruits and vegetables, and eight servings of bread and bread alternative per week. (Refer to Figures 1 and 2 to find the recommended pattern for other age groups for lunch and breakfast.) The lunch pattern for the 12 year old is expected to contain approximately 550 to 600 kilocalories, with 21 to 24 grams of protein.

Figure 1
School Lunch Patterns for Various Age/Grade Groups

		Minimum Quantities				Recommended Quantities
		Preschool		Grades K-3	Grades 4-12	Grades 7-12
Specific Requirements	**Components**	ages 1-2 (Group I)	ages 3-4 (Group II)	ages 5-8 (Group III)	age 9 & over (Group IV)	age 12 & over (Group V)
• Must be served in the main dish or the main dish and only one other menu item. • Vegetable protein products, cheese alternate products, and enriched macaroni with fortified protein may be used to meet part of the meat/meat alternate requirement. Fact sheets on each of these alternate foods give detailed instructions for use.	**Meat or Meat Alternate** A serving of one of the following or a combination to give an equivalent quantity:					
	• lean meat, poultry or fish	1 oz	1-1/2 oz	1-1/2 oz	2 oz	3 oz
	• cheese	1 oz	1-1/2 oz	1-1/2 oz	2 oz	3 oz
	• large egg(s)	1/2	3/4	3/4	1	1-1/2
	• cooked dry beans or peas	1/4 cup	3/8 cup	3/8 cup	1/2 cup	3/4 cup
	• peanut butter or other nut or seed butters	2 Tbsp	3 Tbsp	3 Tbsp	4 Tbsp	6 Tbsp
	• peanuts, soy nuts, tree nuts or seeds	1/2 oz = 50%	3/4 oz = 50%	3/4 oz = 50%	1 oz = 50%	1-1/2 oz = 50%
• No more than one-half of the total requirement may be met with full-strength fruit or vegetable juice. • Cooked dry beans or peas may be used as a meat alternate or as a vegetable but not as both in the same meal.	**Vegetables and/or Fruits** • two or more servings of vegetables or fruits or both to total	1/2 cup	1/2 cup	1/2 cup	3/4 cup	3/4 cup

Figure 1 (continued)
School Lunch Patterns for Various Age/Grade Groups

		Minimum Quantities				Recommended Quantities
		Preschool		**Grades K-3**	**Grades 4-12**	**Grades 7-12**
Specific Requirements	**Components**	ages 1-2 (Group I)	ages 3-4 (Group II)	ages 5-8 (Group III)	age 9 & over (Group IV)	age 12 & over (Group V)
• At least 1/2 serving of bread or an equivalent quantity of bread alternate for Group I, and 1 serving for Groups II-V, must be served daily. • Enriched macaroni with fortified protein may be used as a meat alternate or as a bread alternate but not as both in the same meal.	**Servings of Bread or Bread Alternate** A serving is: • 1 slice of whole-grain or enriched bread • a whole-grain or enriched biscuit, roll, muffin, etc. • 1/2 cup of cooked whole-grain or enriched rice, macaroni, noodles, whole-grain or enriched pasta products, or other cereal grains such as bulgur or corn grits • a combination of any of the above	5 per week	8 per week	8 per week	8 per week	10 per week
The following forms of milk must be offered: • Whole milk • Unflavored lowfat milk *Note.* This requirement does not prohibit offering other milk, such as flavored milk or skim milk, along with the above.	**Milk** A serving of fluid milk	3/4 cup (6 fl oz)	3/4 cup (6 fl oz)	1/2 pint (8 fl oz)	1/2 pint (8 fl oz)	1/2 pint (8 fl oz)

Adapted from U.S. Department of Agriculture, National School Lunch Program.

Figure 2

School Breakfast Meal Pattern Requirements

	Minimum Required Quantities		
Food Components/Items	**Ages 1-2**	**Ages 3, 4, 5**	**Age 6 & Up**
Fluid Milk			
As a beverage, on cereal or both	1/2 cup	3/4 cup	1/2 pint
Fruit/Vegetable/Juice			
Fruit and/or vegetable or full-strength fruit juice or vegetable juice (A fruit, vegetable or juice that is a good source of vitamin C is recommended daily.)	1/4 cup	1/2 cup	1/2 cup
Select *one* serving from each of the following components or *two* servings from one component.			
Bread/Bread Alternates			
One of the following or an equivalent combination:			
• whole-grain or enriched bread	1/2 slice	1/2 slice	1 slice
• whole-grain or enriched biscuit, roll, muffin, etc.	1/2 serving	1/2 serving	1 serving
• whole-grain, enriched or fortified cereal	1/4 cup or 1/3 ounce	1/3 cup or 1/2 ounce	3/4 cup or 1 ounce
Meat/Meat Alternates			
One of the following or an equivalent combination:			
• lean meat, poultry or fish	1/2 ounce	1/2 ounce	1 ounce
• cheese	1/2 ounce	1/2 ounce	1 ounce
• large egg	1/2	1/2	1/2
• peanut butter or other nut or seed butters	1 Tbsp	1 Tbsp	2 Tbsp
• cooked dry beans and peas	2 Tbsp	2 Tbsp	4 Tbsp
• nuts and/or seeds	1/2 ounce	1/2 ounce	1 ounce

Adapted from U.S. Department of Agriculture, School Breakfast Program.

Critics of this meal pattern say that it does not ensure nutritional quality in the meal. They suggest the meal should reflect the *Dietary Guidelines for Americans* (U.S. Department of Agriculture, 1990), which recommend that no more than 30 to 35 percent of the meal's kilocalories should come from fat and that no more than 10 percent of the total kilocalories should come from saturated fat.

Although there is no conclusive evidence that the health risks associated with eating too much fat originate in childhood, children do develop fatty streaks in their coronary arteries. Studies indicate that some of these fatty streaks are the precursors of atherosclerosis, one of the ten leading causes of death identified by the *Surgeon General's Report on Nutrition and Health* (U.S. Department of Health and Human Services, 1988).

Therefore, the call for menu planning based on the goal of lower total fat content is important to the future health status of children. A low-fat meal is also essential as a daily model of a healthful meal pattern. This lower-fat breakfast or lunch can be achieved by a conscientious effort to purchase foods and food ingredients that are low in fat and by using cooking techniques that will produce child-pleasing food items that have no added fat. For example, well-seasoned skinless chicken breasts can be offered instead of fried chicken; a baked potato rather than a high-fat hot dog can be topped with chili; and children will certainly eat oven-fried rather than deep-fat-fried potatoes.

The process for purchasing food needs to be structured around the nutrient content of the food. The food service director should require that the producer or vendor provide nutrient information about each processed food item. Progressive food service directors are now using computer nutrient database programs such as Food Processor II or Nutritionist 3 to analyze and plan their menus.

Many steps can be taken to modify cooking procedures to lower the total fat, sugar and salt content of foods. Kitchens everywhere are now modifying procedures by draining cooked meat before adding it to entrees such as chili or spaghetti, skimming fat from soups and stews, and preparing their own salad dressings, cutting down on the amount of oil and salt.

Other recommendations of the dietary guidelines can be implemented through meal planning, modified cooking techniques and thoughtful purchasing. The goal to provide more fiber in the meal is easily implemented. The menu can reflect an increase in fresh fruits and vegetables, using vegetables in main-course offerings and fruits as desserts. When a fresh fruit is used as a dessert, the amount of fiber in the meal goes up while the amount of simple sugars goes down. Pastas, desserts and breads should be made from fiber-rich whole grains. The kitchen baker can substitute whole-grain flour for half the amount of white flour in a quick bread recipe, and children will accept it. (See box.)

Healthy Menu Modifications

Plenty of Vegetables
Low in Sodium (Salt)
Lean Meats or Legumes (Beans)
Whole Grain Breads and Cereals
Low-Fat Dairy Foods
Low in Fats or Oils

The school menu has often been characterized as starchy, since it might feature a pasta dish, corn and bread on the same tray. This menu is in compliance with the meal pattern and the U.S. dietary guidelines, which suggest that daily intake should include much complex carbohydrates (starches) and few simple sugars. Education targeted to students, parents and staff can help them understand that this "starchy" menu is actually very healthy.

The USDA funds several training programs that help educate food service staff in better buying techniques and recipe modification methods. For example, the National Food Service Management Institute at the University of Mississippi currently provides both seminar and teleconference training. USDA also funds Nutrition Education and Training (NET) programs in each state. The state NET program is involved in both food service training and nutrition education curriculum and instruction. Many states have published excellent curriculum tools for both areas of responsibility.

Other Supportive Activities and Policies

Nutritional guidelines and menu modifications are one very important aspect of the effort to promote optimal nutrition and health for all children, but more needs to be done. Local school boards must write and adopt policies that support the concept of access to nutritious and appealing meals, served in pleasant surroundings and in an environment that fosters development of positive attitudes and social skills. These policies should ensure that the time set aside for students' meals is long enough to allow for a relaxed mealtime.

The lunch area needs adequate supervision so students will develop the habit of having lunch in an orderly, quiet manner. Some schools have implemented programs that use older students as lunch buddies who eat with younger students and model both positive attitudes toward lunch and social skills.

The nutritional policy for the school district should also contain guidelines for the sale of nonnutritious foods and the use of items donated by parents for classroom parties and schoolwide events. Such a policy is likely to be unpopular when first discussed, because often school programs such as athletics, student government and band make money by sponsoring candy and soda sales.

Congress allows schools to control the sale of foods of minimal nutritional value in the food service areas during meal periods.

The sale of competitive foods at other times and places is allowed only if the income is used by the school or by student organizations.

According to the USDA, "minimum nutritional value" means that a food provides less than 5 percent per serving of the U.S. RDA for each of eight specific nutrients. This definition bars the sale of soda pop, chewing gum and hard candy, but allows the sale of candy bars made with milk or nuts, and vitamin-fortified drinks, even though they have a high fat and sugar content. The sale of nonnutritious foods has been banned in Cincinnati, Ohio; Washington, D.C.; West Virginia; Louisiana; Arizona and Massachusetts.

Before a school board is ready to ban the sale of nonnutritious foods, it may need to address the financial problems that prompt school organizations to sell nonnutritious foods. Boards will also have a difficult time defining what such nonnutritious foods are if they are particularly interested in restrictions based on the fat, cholesterol and sodium content of the foods. The current USDA definition does not consider fat, sugar and fiber contents.

The school policy and program must make provisions for nutrition education as part of classroom instruction. This instruction should be based on a curriculum that has an appropriate scope and sequence and up-to-date instructional strategies. Inservice for the classroom teacher is essential to successful implementation of the program. A one-time inservice usually does not sustain the effort. Follow-up inservice and peer support teams help sustain a high level of quality and frequency of instruction.

The school child nutrition director can play a major role in assisting the school board to develop and implement policy. The director can also join forces with the district's curriculum staff to select and implement curriculum. The director will also be a valuable member of the inservice team. He or she will then be able to serve as an ongoing resource to classroom teachers for technical information and classroom support. Support may include allowing classes to use kitchen facilities or equipment for food preparation activities, opening the school kitchen facility for class field trips or visiting classes as a guest lecturer.

School policy should also call for ongoing professional development opportunities for both the child nutrition staff and the teaching staff. The ideal school is one in which the child nutrition staff has a career ladder and staff members receive promotions or pay increases based on the amount of continuing education that they receive. The American School Food Service Association conducts a certification program to promote continuing education for its members. The USDA strongly recommends that any school food service program involve an advisory committee comprised of students, parents, teachers and community representatives to advise them on nutrition issues, menu suggestions and program marketing.

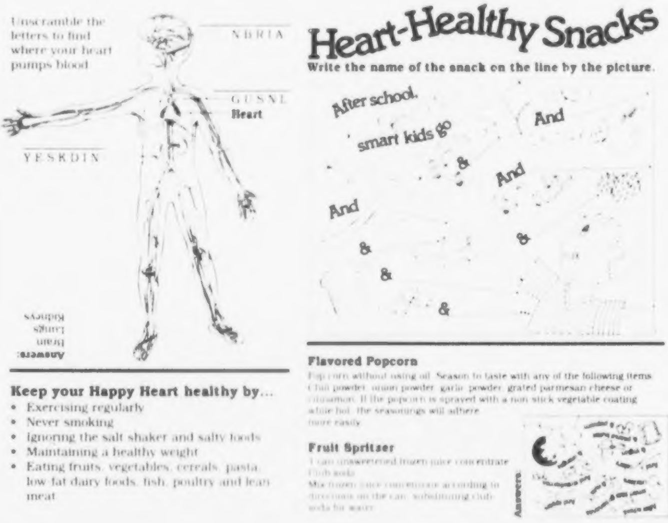
Marketing

A school lunch program that serves well-planned, nutritious meals will not be considered successful until a large majority of the students eat the food. To achieve this goal, program managers must make conscious efforts to "sell" the program to students, parents, faculty and the community. This effort should not only market the availability of the program but also the nutritional quality of the food served.

Many families mistakenly feel that the school lunch program is too expensive. The typical price for an elementary school lunch is $1.50. A survey done in one California school district found that a typical lunch packed at home usually cost more than $2.20 and did not include all of the food categories that are part of the lunch pattern. The sack lunch is often an expensive, nutritionally unbalanced meal. Potato chips and soda are not a substitute for a baked potato and milk.

The school lunch program's information and sales campaign needs a multimedia approach to reach all of the essential populations. The child nutrition office can publish monthly menus with healthy menu modifications highlighted on the front and a fact sheet about nutrition on the back (see Figure 3). Many sources, such as the American School Food Service Association, the American Heart Association and the California Department of Education offer prepared fact sheets.

Figure 3
Sample Fact Sheet for Students



Unscramble the letters to find where your heart pumps blood

NBRIA
GUSNL
Heart
YESKDIN

Answers: Brain Lungs Kidneys

Keep your Happy Heart healthy by...
- Exercising regularly
- Never smoking
- Ignoring the salt shaker and salty foods
- Maintaining a healthy weight
- Eating fruits, vegetables, cereals, pasta, low fat dairy foods, fish, poultry and lean meat

Heart-Healthy Snacks

Write the name of the snack on the line by the picture.

Flavored Popcorn

Pop corn without using oil. Season to taste with any of the following items: Chili powder, onion powder, garlic powder, grated parmesan cheese or cinnamon. If the popcorn is sprayed with a non-stick vegetable coating while hot, the seasonings will adhere more easily.

Fruit Spritzer

1 can unsweetened frozen juice concentrate
Club soda
Mix frozen juice concentrate according to directions on the can, substituting club soda for water.

Reproduced with permission. "Getting to Know Your Heart Lower Elementary Kit," 1988. © American Heart Association.

If the school serves a multicultural population, the menu information should be provided in other languages. In many areas, local radio stations will broadcast weekly school lunch menus. Add notes to the menu to highlight the foods that are lower in fat or higher in fiber—take credit for the menu modifications that you have made.

Back-to-School Night or open house is a perfect time for the child nutrition program to market its activities to parents, with a display of school lunch trays and handouts about nutrition and the nutritional quality of the school lunch. When a lunch menu is analyzed by a computer nutrient analysis program, the resulting totals speak for the nutritional quality of the meal.

Teachers need to support the school program, encouraging students to participate and consume the food offered. Teachers' attitudes about food programs go a long way to encourage both participation and consumption. Supportive teachers can help to set norms for behavior in the cafeteria area, also.

Child nutrition programs across the country have used students as part of their marketing efforts by forming youth advisory councils. Such councils can help plan menus, serve as tasters for food items, plan and coordinate contests and events in the cafeteria and serve as sounding boards for students' concerns about the program.

The Feeding Relationship

From infancy, humans are conditioned to equate the providing of food as an act of caring for those who will receive the nourishment. This conditioning automatically places the team of professionals in the school who do the planning, purchasing, preparation and serving of the food on the school health team, the team of people who provide the instruction and support services designed to meet the physical and psychological health needs of the student.

The security of this relationship between the provider and the consumer can nourish both the hunger for food and the emotional need to be connected with people in caring relationships. Many adults still fondly remember the "food service lady" who smiled at them, called them by name and served them a lunch that was tasty and nourishing. It was a welcome interlude in the rigors of the school day.

In many schools, students are hired by the food service department to help in the serving line to speed up the lunch process. Student workers can derive a special sense of purpose from the work responsibility and a good feeling from the relationship with the adult staff. Many of these student workers are high-risk students who do not often receive social support and recognition for their contributions. For such students, the food service job can be a protective factor, helping them to build the self-esteem that can deter academic failure and poor health-related decisions.

The child nutrition program is an essential part of the school comprehensive health program. It gains its place on the school health team as a program that offers nourishment to students; nutrition education to students, parents, staff and community; and opportunities for students to practice what they've learned in health class as they make wise food choices.

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Content Issues

Chapter 11

Personal and Social Skill Development Is Basic

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Risk taking is a part of normal psychological development. During their teen years, young people try a variety of "risky" behaviors with the expectation that they will not be permanently committed to or harmed by these behaviors. As they progress through this period of "storm and stress," adolescents typically acquire a variety of personal and social skills critical for dealing with a myriad of situations, problems and pressures. They make many choices, learn about appropriate and inappropriate risks and behaviors, and, ideally, emerge as functioning adults.

However, statistics related to adolescent health risk behaviors (using tobacco, alcohol and other substances, engaging in early and/or unprotected sexual intercourse, binging and purging to lose weight, drinking and driving, not using safety belts or safety helmets, carrying and using weapons, and committing suicide), are showing that typical adolescent experimentation is no longer harmless and may in fact have serious health consequences.

As a result, the Office of Disease Prevention and Health Promotion (1991) and the Centers for Disease Control and Prevention (1992) have targeted six priority areas for comprehensive school health education program focus:

- behaviors that result in unintentional and intentional injuries
- use of alcohol and other drugs
- tobacco use
- sexual behaviors that result in sexually transmitted disease, HIV infection and unintended pregnancy
- imprudent dietary patterns
- inadequate exercise

But how do we most effectively target these areas? Which program elements are necessary to effectively address these priority needs? And, once identified, how can these program elements be integrated within comprehensive school health education?

Over the past twenty years, a variety of prevention programs related to substance use and sexuality behaviors have been developed and evaluated. The most promising approaches are based on the results of these evaluation studies.

In the sixties, health education programs focused on the presentation of information about the physical and psychological effects of engaging in particular health-risk behaviors. In these programs, the underlying assumption was that if young people were aware of the short- and long-term consequences of using drugs, having sex and so on, they would choose not to engage in those behaviors. These programs typically used scare tactics to portray the negative personal, social and legal consequences of health-related decisions.

In the seventies, prevention programs incorporated more affective methods. They focused on eliminating interpersonal and intrapersonal factors that were thought to be associated with particular behaviors. These programs included activities to enhance self-esteem, clarify values and strengthen decision-making skills. Overall, information-based programs and affective education programs increased students' knowledge and attitudes, but did not effectively delay onset or decrease incidence of health-compromising behaviors.

Over the last decade, prevention programs have used a variety of psychosocial approaches, including social learning theory, social influences theory, social inoculation theory and cognitive behavioral theory, in hopes of decreasing adolescents' health risk behaviors. Such programs are based on the premise that young people need a variety of generic skills that they can use in social situations where they are confronted with making health-related decisions.

Evaluation of programs based on psychosocial theory have identified several key elements necessary for program success. First, accurate information is essential; effective programs examined short- and long-term physical, social, emotional and legal consequences of health-related decisions and the internal and external influences on personal health practices. Second, these programs incorporated activities to increase self-awareness and enhance self-esteem. Third, they used peer helpers in a variety of roles and actively involved parents and other caregivers in the program. Fourth, and most important, they included activities to build personal and social skills. (For details about effectiveness of specific prevention programs see: Alcohol, Drug Abuse and Mental Health Administration, 1990; Bell and Battjes, 1987; Botvin, 1987; Botvin and Wills, 1985; Eisen, Zellman and McAllister, 1990; Flay, 1985; Howard and McCabe, 1990; Glasgow and McCaul, 1985; Kirby et al., 1991; Kumpfer, 1990; Lando, 1985; Schaps et al., 1981; Schinke, Blythe and Gilchrist, 1981.)

Comprehensive health education is the most obvious forum for targeting health issues and risk behaviors. However, to meet the

National Health Promotion and Disease Prevention Objectives, health education programs must be expanded to include personal and social skills that adolescents can use in making decisions about their health-related practices.

Four Generic Personal and Social Skills

Four generic skills have been identified as key to the development of personal and social competence: decision-making skills, communication skills, stress-management skills and goal-setting skills. The next section will provide an overview of each skill, including a discussion of essential information that should be presented in classroom discussions, as well as a list of subareas that should be addressed with classroom skill-building activities.

Making Informed Decisions

As young people pass through adolescence, they are confronted by a variety of personal, social, educational and career decisions they never had to make before. Some decisions are automatic and based on habit, such as deciding when to get up, what to wear, what to have for breakfast. Others are made on a hunch. Still others are made based on past experiences (i.e., "I did this before and it seemed to work") or by default (i.e., not deciding at all).

There are times, such as in an emergency, when there is not enough time to analyze the situation and examine the possible consequences of a decision. But in some cases, personal decisions are more important and must be given mindful consideration. If these situations and issues are not carefully thought through, their consequences could have far-reaching effects on a young person's health, future decisions and long-term goals.

Without strong decision-making skills to actively solve problems that may arise in personal and social situations, teens may feel unsure and overwhelmed. Understanding how decisions are made helps adolescents deal with difficult problems and makes these problems less overwhelming. Strong decision-making skills can increase adolescents' sense of control over their lives, thus enhancing their self-esteem and self-efficacy, and ultimately enabling them to take responsibility for their own decisions.

Class discussions about decision making should focus on internal and external influences on personal decisions. Young people often choose to use substances, have sex or engage in other health-compromising behaviors in an effort to feel important, be accepted, feel grown up, escape or take a risk. They make many choices in response to pressures from parents or other caregivers, teachers, significant adults and peers. In addition, teens can be strongly influenced by media, advertising, or behavioral norms that exist, or appear to exist, in the community.

A variety of other factors, including available information and resources, personal skills and experiences, personal values and beliefs, perception of risk, peer approval, availability and peer norm, may affect personal decisions. Students should examine these factors and influences as they relate to their own lives.

Finally, the steps to good decision making (define the problem; gather information; list possible solutions; list consequences of each solution; choose the best solution and try it out; evaluate the decision) should be discussed and applied to real-life situations.

Skill-building activities for making informed decisions should include:

- identifying decisions to be made or problems to be solved
- analyzing influences on personal decisions
- examining personal skills and capabilities as they relate to possible solutions
- distinguishing between things that can and cannot be changed

- identifying information sources and organizing available information
- personalizing risk of decisions to self and others
- correcting misperceptions of peer norms
- identifying positive and negative short- and long-term consequences of decisions
- identifying support systems
- analyzing real-life situations using the decision-making model
- understanding how one personal decision may affect subsequent decisions
- taking responsibility for personal decisions
- evaluating decisions and making necessary changes

Communicating Effectively

Every day, everywhere, we give and receive hundreds of messages. Think about a typical day. How many types of communication can you remember?—perhaps a baby's cry, laughter of young children playing during recess, a short note to an acquaintance, the wave of a hand, a pat on the back, signs, a frown on someone's brow, a lunchtime conversation with a good friend, an argument with your child or mother. The messages we give, how we give them (verbally or nonverbally), how well others understand what we meant and how well we understand what others mean directly affects the quality of our interpersonal relationships.

Communication—the ability to clearly express one's thoughts, feelings, beliefs, opinions, reactions, values, hopes and dreams—is a skill that must be learned. A young person's ability to communicate can have a direct effect on his or her level of self-esteem and the quality of his or her relationships with others. Poor communication can lead to misunderstandings and feelings of anger, mistrust and frustration with teachers, friends, family and others.

The ability to have successful interpersonal relationships requires a broad range of communication skills, including the ability to initiate conversations, actively listen to others, express thoughts and feelings, agree or disagree with others' opinions, and give clear and consistent verbal and nonverbal messages. These skills are essential for self-efficacy—the ability to execute the behaviors necessary to produce a desired outcome (Bandura, 1977).

Young people must be taught how to send verbal and nonverbal messages that accurately describe who they are, what they think, how they feel and what they believe. Giving verbal and nonverbal messages that agree, as well as understanding the physical and emotional context of the message, are key to determining the overall meaning of communication.

Since people communicate on many different levels, class discussions should address how personal conversations can include cliches, information and facts, ideas and feelings, and finally, self-disclosure. Most often, levels of communication correspond to the level of intimacy in the relationship. The level of intimacy in a relationship, however, can change from day to day depending on the situation and the topic.

Understanding barriers and how to overcome them (e.g., the listener is not actively listening; the speaker and listener are "speaking" a different language; the listener's personal biases affect his or her response; the speaker makes assumptions about the listener) is critical to good communication. When a young person can recognize that a particular behavior is interfering with communication, he or she can take steps to replace old behaviors with new skills, resulting in more satisfying relationships.

Specific focus should be placed on assertiveness skills—helping students say what they think and stand up for what they believe and value, without hurting others or denying the rights of others. In learning the difference between passive, assertive and aggressive responses, students must understand the fine line between being assertive and being aggressive. In addition, they must be able to differentiate between situations where assertiveness may be helpful or harmful. Assertiveness skills learned in health education class help teens say no to friends, ask favors of others and express opinions when they differ from the rest of the group's. Strong assertiveness skills can increase the likelihood of getting what one wants, increase one's level of self-esteem, decrease frustration and stress, and decrease the likelihood of being taken advantage of by others.

Refusal skills, one type of assertiveness skill, help students clearly say no in a way that does not jeopardize peer and family relationships. Such skills can help young people avoid situations where they might be pressured or delay making a decision until they have had time to consider possible alternative actions. Refusal skills are based on the assumption that young people, if forewarned of internal and external pressures on health-related decisions, can develop and rehearse arguments in advance and successfully refuse to engage in health-compromising behaviors.

Skill-building activities for communicating effectively should include:

- initiating and maintaining conversations
- actively listening and responding to others
- following directions
- learning to communicate verbally and nonverbally
- identifying commonly used signs and body language that clarify or confuse a verbal message
- giving clear, consistent verbal and nonverbal messages
- identifying personal barriers to communication
- understanding how personal biases affect communication
- stating one's position whether it agrees or disagrees with that of others
- writing I-statements

- differentiating between passive, assertive and aggressive responses
- giving one-line refusals to peer pressure situations
- using scripted, half-scripted and nonscripted roleplays describing real-life scenarios to practice refusal skills
- resolving conflict in peer and family relationships

Managing Stress

Stress is a natural part of everyone's life. It can place people under pressure and make them feel uptight, or it can give them the drive and motivation to succeed. It can lead to conflict or can help solve conflict. It can make people tense and unhappy, or it can make their lives interesting and challenging. It can be helpful or harmful. Whether stress leads to growing or debilitating experiences is directly related to how well an individual deals with stressful situations.

Many students make unhealthy decisions because of stressful situations in school, at home and with peers. Young people need to know the difference between "good" and "bad" stress and how it can affect them physically, emotionally and socially. Class discussions should focus on identifying common stressors, the short- and long-term effects of stress and positive and negative ways of coping with stress (e.g., distraction, avoidance and escape).

Most important, students must learn effective ways of managing stress. Most people continue to use coping skills—short-term solutions—long after a stressful situation calls for more long-term strategies. For example, a young person may deal with a dysfunctional family situation by drinking or using other drugs rather than seeking help from friends, significant adults or professionals. A teen who feels unsuccessful at school may fake illness so that he or she does not continually face failure. Or a young woman, feeling unloved and unworthy, may choose to have unprotected sex and, ultimately, have a baby whom she can love and who will love her back.

Since stress is unavoidable, young people must learn to manage stressors and decrease the pressures they cause before the level of stress reaches a point where physical or emotional health is affected or before their way of coping becomes harmful (i.e., alcoholism or other drug addiction, withdrawal, suicide). Good stress-management skills, such as enhancing personal and emotional health, mental rehearsal skills, learning to relax and building a support network, can reduce overall feelings of stress or change a stressful situation into a healthy challenge.

Skill-building activities for managing stress should include:

- differentiating between "good" and "bad" stress
- identifying physical, emotional, social, family, school and environmental stressors
- monitoring stressful situations and ways of dealing with them
- examining physical and emotional reactions to stress
- clarifying expectations of self and others
- identifying ways to avoid stressful situations when feasible
- discussing personal strategies for coping with stress
- enhancing personal and emotional health
- learning relaxation techniques
- building and maintaining support systems at home, at school and in the community
- identifying sources of professional assistance

Setting Personal Goals

Some people set goals and accomplish them easily. Others talk about what they want and where they want to be but never really make anything happen. What makes these two types of individuals different?

People are not born with goal-setting skills. Nor do these skills magically appear as they grow older. In the process of growing up, teens attempt to move from dependence to independence, attempting to take responsibility for where they are going and who they will become. Many students, however, make choices based on their perceptions of the immediate rather than the long-term consequences of those decisions. In short, immediate gratification is the primary outcome of their decisions.

Short- and long-term goals can provide a framework for making personal decisions. They can be powerful motivators that help focus young people's energies so they can accomplish the things they set out to do. As young people develop—physically, mentally, emotionally, socially and spiritually—they must first realize that they have the ability to influence who they are and what they can become. Subsequently, they can realize their full potential by taking charge, planning their futures, and taking small, yet important steps toward making their visions a reality.

Related to setting personal goals, class discussion should focus on the steps for achieving personal goals: examining "who you are" and "where you are," developing a vision, setting achievable goals, devising an action plan, establishing a support network and setting up a reward system. Personal awareness of strengths, capabilities, talents, skills and values will lead to the development of personal goals that are achievable. Short- and long-term goals evolve out of personal vision. If students compare who and where they are with who and where they want to be they can chart a course to get there.

Achieving personal goals is not as easy as it sounds. A number of factors may interfere. As they begin setting short-term goals, teens must become aware of numerous barriers, so they can overcome as many as possible and increase their probability of success. Finally, they must be able to predict the possible impact of health-related decisions on their short- and long-term goals.

Skill-building activities for setting personal goals should include:

- assessing personal strengths and weaknesses, capabilities and limitations, likes and dislikes
- clarifying personal values and beliefs
- identifying short- and long-term personal expectations
- predicting short- and long-term outcomes of personal behavior
- identifying support systems at school, at home and in the community
- identifying ways to reward personal achievements
- applying the steps for achieving personal goals
- identifying barriers to achieving personal goals
- analyzing the impact of personal decisions on future goals

Teaching Personal and Social Skills

Think back to any skill you have mastered (e.g., skiing, reading, swimming). What were some of the steps involved in learning that skill? First, someone may have told you how to do it. You might have read a book that described the skill step by step. At some point, another person may have demonstrated the skill to you. You practiced over and over and over again, until you got it. Finally, feedback from your friends, your family, and/or your teacher helped you perfect the skill.

Now, think about your own personal and social skill-building experiences. Were the steps to learning these skills the same? Learning how to make a decision, be assertive, set personal goals, and manage stress are actually very similar to learning how to swim, ski or read.

The previous section described the four generic personal and social skills. But simply presenting young people with information about personal and social skills is no guarantee that they will be able to make informed decisions, communicate effectively, manage stressful situations, or set and achieve personal goals, or that they will actually use the skills in their everyday relationships and situations.

No matter which personal and social skill students attempt to master, the likelihood that they will feel competent and will be able to use the skills once they leave the classroom involves five steps: introducing the skill, presenting the steps for developing the skill, modeling the skill, practicing and rehearsing the skill, and providing feedback and reinforcement.

Introducing the Skill

Discuss the importance of each new skill. Use simple, everyday examples to illustrate how the specific skill is used. For example, when introducing decision making, have students brainstorm a list of decisions they made before coming to school (e.g., deciding to get up, deciding not to eat breakfast, deciding what to wear). Or, after defining stress, have students identify things that are stressful to them in school, at home or with their peers and describe how they deal with these situations. These types of activities will help students realize that the skill is not new, that they in fact use the skill on a regular basis, often unconsciously.

Explain what makes each "generic" skill similar and/or different from the others. Identifying common elements among skills will serve as review and reinforcement of previously learned skills, ultimately increasing students' confidence in their ability to perform the new skill. For example, in the decision-making model, students are asked to identify consequences of possible solutions to a real-life situation. When setting personal goals, have students practice predicting short- and long-term effects of selected behaviors. Show your students how identifying consequences involves the same process as predicting short- and long-term effects.

Help students understand how the new skill builds on other skills. For instance, a young person may decide that he is not ready for sex (decision-making skills), so he must be able to say "no" to his partner (communication/refusal skills). Or another teen may decide not to take drugs (decision-making skills) because of her future plans to attend college and become a teacher (goal-setting skills). Linking one skill to another will increase students' understanding of how personal and social skills interrelate and cross over all aspects of their lives.

Finally, personalize information about the new skill. When you describe situations where the skill *is* or *can be* used, be sure to use examples that are real to your students. Encourage them to share their own experiences and think of situations in their lives where they could use the new skill.

Presenting the Steps for Developing the Skill

The first step in learning any new skill is knowing how to do it. Each generic skill has a series of specific steps necessary for successful performance. Present and discuss each step separately using a wide variety of activities.

For example, the steps for achieving personal goals include examining who you are and where you are, developing a vision, setting achievable goals, devising an action plan, establishing a support network and setting up a reward system. If, after introducing the skill and its importance, you proceeded to discuss these six steps concurrently, students would probably feel overwhelmed.

So, take it in small steps. Target one skill-building step at a time. That is, begin with activities that help students examine who they are—their strengths and weaknesses, capabilities and limitations, likes and dislikes, values and beliefs. Follow with activities that help students develop a vision—a picture of where they want to go and what they would like to be, and so on. Let the level of your students' responses be an indicator of whether or not they are ready to proceed to the next step.

Modeling the Skill

Modeling is critical to building personal and social skills. After students understand steps for building a specific skill, use one or more examples to model each step *and* the entire skill.

With cognitive skills such as decision making, present a simple but realistic problem and go through the process step by step: define the problem, gather information, identify possible solutions, list consequences of those solutions, make the decision and decide how to evaluate the success of the decision. Once students become familiar with the decision-making process, present a more complicated situation involving a variety of influences (e.g., a situation where peer influence is in direct conflict with parental or caregiver guidelines).

Similarly, with goal-setting, select a short-term goal that is realistic for your students and go through the steps, including listing the benefits of attaining the goal, identifying small steps toward reaching the goal, identifying obstacles that could prevent achievement of the goal and listing possible ways to overcome the identified obstacles.

With behavioral skills, such as assertiveness and refusal skills, present real-life situations using scripted, half-scripted and unscripted roleplays to demonstrate the skills in action. For stress-management skills, have students maintain a stress log, identifying daily stressors and the ways they deal with them. Using identified stressful situations, model alternative ways of coping with or managing the stressful situation with roleplays.

Personal and social skills should be modeled across all health content areas and all aspects of young people's lives. For example, refusal skills are most often associated with using substances and/

or having sex. These skills, however, are used in many everyday interactions with friends and family (e.g., refusing to help a friend cheat on a test, refusing to get in a car with someone who has been drinking, refusing to go to a movie that you really don't want to see).

Continue modeling different situations, alone or with students, until students' responses indicate that the majority of them understand. Whenever necessary, review the skill-building steps with realistic examples.

Practicing and Rehearsing the Skill

Related to academic, athletic, dramatic or musical ability, the phrase "practice makes perfect" is commonly used. The same phrase can be applied to personal and social skill building. Self-efficacy—young people's ability to actually execute a learned skill in their personal and social lives—depends upon the amount of practice and rehearsal they have had.

In almost all cases, however, the ability to perform a particular behavior (e.g., say no, be assertive, make an informed decision) is situation-specific. A young woman may be able to say no to smoking marijuana because she understands the personal risk, but she may not be able to say no to unprotected sex because she is afraid to talk about buying and using condoms. A young man may be able to express his feelings openly and honestly with his closest friends, but he may be unable to tell his parents he thinks the curfew they have set is unfair. A young couple may affirm their love for each other and plan their future together, but may be unable to talk about using protection to prevent disease and/or pregnancy.

Begin practice and rehearsal of new skills in small groups with nonthreatening situations. To ensure that all students participate, have them write their individual responses on worksheets. Shyer students can read their responses in small groups. When students feel comfortable and confident, use more complicated situations. Finally, practice in larger groups so that all students can interact and benefit from what was accomplished in small groups. Continued practice and rehearsal will empower students to think on their feet and respond to unanticipated issues and problems.

Providing Feedback and Reinforcement

Incorporate a process of feedback and reinforcement, beginning with skill modeling and continuing throughout the practice sessions. Encourage positive feedback by focusing on what has been done correctly and what could have been done differently, rather than what was done incorrectly.

Use observation worksheets to help students stay focused on specific skill-building steps during practice sessions. These worksheets will help students observe each other and give feedback about whether they have incorporated the key components of the specific skill.

In classroom discussion, elicit input from as many students as possible. Help students understand that they have different experiences and skills and that each situation can be handled in a variety of ways depending on the individual and the specific circumstances.

Promote the use of personal and social skills by asking students to share experiences where they used newly learned skills. This reinforcement will help young people personalize skill-building information. Daily logs, written assignments, small group interactions and large group discussions can be used to determine if students are actually using the skills and will help identify obstacles to using the skills on a regular basis. As a class, students can generate a list of ways to overcome common obstacles to using personal and social skills.

Empowering Students to Use Personal and Social Skills

In addition to understanding the skills themselves and the steps for developing them, several factors set the stage for whether students will actually practice and successfully use these personal and social skills: enhancing self-esteem, creating a supportive environment, putting yourself in your students' shoes, and involving students directly.

Enhancing Self-Esteem

Self-esteem is an evaluative term that reflects people's perceptions about their personal characteristics and abilities. In short, self-esteem refers to the way people think and feel about themselves. Levels of self-esteem change based on daily experiences and interpersonal relationships at home, at school, in peer groups and in the community.

Young people with high self-esteem are not only satisfied with themselves but are also able to take risks to try new things and develop new talents and abilities. They are not only satisfied with their existing relationships but are also able to meet new friends and develop more intimate relationships with old ones. They are not only confident of their ability to complete tasks successfully but are also able to accept additional challenges.

Most important, levels of self-esteem directly affect the ability to make informed decisions, communicate effectively, manage stressful situations and, ultimately, set and achieve personal goals. Thus, enhancing self-esteem is a critical first step toward empowering students to take charge of their lives and use personal and social skills.

According to Bean (1992), four conditions are essential to maintaining high levels of self-esteem: a sense of uniqueness, a sense of connectiveness, a sense of power and a sense of models.

Students with a strong *sense of uniqueness* have an accurate picture of themselves—what makes them special and what makes them similar to others. They recognize their capabilities and limitations, accepting the fact that they are not perfect. A sense of uniqueness can be developed through classroom and schoolwide experiences that help young people recognize and accept their unique attributes and qualities as well as those of others; express their ideas openly, without criticism and judgment; and be creative in a variety of ways.

Students with a strong *sense of connectiveness* identify with one or more groups of people, and, more important, are satisfied with their affiliations. They feel connected to their past and heritage and feel respected by others. A sense of connectiveness can be developed through classroom and schoolwide activities that provide students with opportunities to participate as functioning members of a group; share their ideas, interests and opinions with others; and gain personal recognition from peers, teachers and families.

Students with a strong *sense of power* believe they have the ability to affect what happens to them. They are able to take charge of things in their lives and make desired changes. They are able to distinguish between the things they can change and those they cannot. A sense of power can be developed through classroom and schoolwide activities that provide students opportunities to make choices that affect their personal and academic lives, take responsibility for those choices, demonstrate self-control and self-discipline, and acknowledge and increase their level of personal and social competence.

Students with a strong *sense of models* are confident in their ability to distinguish between right and wrong, are aware of the standards by which their actions will be evaluated, and, thus, are able to take responsibility for their actions. They are self-directed and motivated as they pursue personal goals. A sense of models can be developed through classroom and schoolwide activities that allow students to examine and express their personal, family, religious and cultural values and beliefs; identify future goals; and set and monitor achievable goals.

Wherever possible, to empower students to use the decision-making, communication, stress-management, and goal-setting skills they have learned, interweave activities to enhance self-esteem with skill-building activities. (For specific activities to increase a sense of uniqueness, connectiveness, power and models, see Fetro, 1992.)

Creating an Open, Supportive Environment

The classroom environment is critical to successful personal and social skill building. A forum that supports individual differences and enhances self-esteem will increase students' willingness to participate in discussions and share their thoughts, feelings, ideas and opinions with others. Students will be willing to take risks as they learn new skills and discuss sensitive health content areas. An open, supportive environment will give students a sense of security (I will not be harmed by trying this), a sense of belonging (We're in this together), a sense of respect (My opinion is just as valuable as anyone else's), and a sense of personal and social competence (I can do this!).

Young people are never quite sure how they are *supposed* to feel, what they are *supposed* to know, how they are *supposed* to react, and what they are *supposed* to believe. Setting and maintaining groundrules will allow students to share and explore personal and social skill building in an accepting environment. Typical groundrules include no put-downs; no question is silly or dumb; listen when others are speaking; everyone has the right to pass; all discussions are confidential. No matter which health content area is being discussed, student input is critical. With groundrules in place, students will have a clear idea of what is expected of them, their classmates and you.

Putting Yourself in Your Students' Shoes

Try to remember what it was like to be a teenager. Consider the choices you had to make; the pressures you had from your parents, teachers, and friends; and how you did or did not deal with them. Remember how difficult it was to say no to your friends because you wanted to be accepted, to be assertive with someone you really cared about for fear of losing them, or to tell your parents or caregivers that you didn't want to be what they wanted you to be.

Remember your internal confusion and insecurity as you made choices pitting your personal beliefs and values against your need for acceptance and love. Remember how totally overwhelmed you may have felt as you tried to meet the expectations of all those who were important to you. The more things change, the more they stay the same. Use your personal experiences to help tailor classroom activities and develop real-life scenarios and case studies that will be relevant to teens.

Involving Students Directly

Personal and social skill building cannot be successful without direct student involvement. As realistic as they may seem, the situations and examples you choose for classroom activities may need some fine-tuning from your own students. Challenge students to write their own roleplays, case studies and real-life scenarios. Then have them work together to act out their roleplays and make decisions for characters in their case studies.

Provide numerous opportunities for students to work together, formally or informally. Young people rely on each other for information about health-related issues and concerns and discuss feelings openly and honestly with their peers (Cook, Sola and Pfeiffer, 1989). Use this built-in support system to enhance your skills-based health education program. Have students present key information, facilitate small group work and model new skills. If feasible, have your students make presentations to younger students, incorporating the skills they have learned and activities they have developed.

Although it may require more organization and class time, involving your students in the learning process will help them personalize information and skills, leading to a higher probability of success. They will begin to realize that the skills they have learned can be used in any situation and that, with continued practice, each of them can attain some level of personal and social competence.

Training Health Educators to Teach Personal and Social Skills

Since personal and social skill building typically has not been included in teacher preservice, inservice and professional preparation programs, training programs should be expanded to include key information and skill-building activities related to decision making, communication, stress management and goal setting. Just as young people must learn the similarities and differences between the skills, understand the steps to skill development and practice and rehearse each skill, so must the health educators who will be teaching them.

Within the training, the sequence of activities necessary to build each skill should be modeled and, subsequently, experienced by health educators. In addition, follow-up discussions should process each activity: What types of questions might students ask?

What situations might arise in the classroom to influence its success? What could be done to follow up or extend the activity? (For more information about preservice education, inservice training and professional preparation, see Chapters 27, 28 and 29.)

Integrating Skills Across All Health Content Areas

Health education has ten identified content areas: community health, consumer health, environmental health, family life, growth and development, nutritional health, personal health, prevention and control of disease and disorders, safety and accident prevention, and substance use and abuse (National Professional School Health Education Organizations, 1984). Think about how the four generic skills could be incorporated into all ten content areas.

Although decision making is often taught in relation to sexuality and substance use, young people make choices about the food they eat, the products they buy, the community resources they use and the safety precautions they take. Similarly, teens are taught to say no to substance use and sex, but they may find themselves saying no on a regular basis to a variety of other pressure situations (e.g., cheating, skipping school or fighting). Communication skills are not only important in maintaining interpersonal relationships with family members, friends and others, but are also essential to being a good health consumer.

Young people will not be able to transfer a skill they learned in one content area to another content area unless you show them that their newly-acquired skills are transferable.

Examining Your Existing Curricula

Most existing curricula incorporate some level of personal and social skill building. Use the information presented about each skill described earlier in this chapter to determine if key content areas and skill-building activities are included in existing curricula.

If more than one curriculum package is implemented (e.g., a published substance use prevention curriculum, a district-developed abstinence-based curriculum, and a community-based nutrition curriculum), examine each to determine gaps in key information and skill-building activities. Then select or develop new activities to fill the identified gaps.

Integrating Skills Across Health Content

Integrating generic personal and social skills across health content will accomplish two major goals. First, it will provide built-in practice, feedback and reinforcement sessions, regardless of which health education area is being discussed. And, second, it will save valuable curriculum time, since it will eliminate duplication and overlap that might occur from one curriculum to another.

Personal and social skills can be integrated one of three ways. In the first approach, rather than teaching a unit on substance use prevention, nutrition, family life or diseases and disorders, present each skill as a classroom unit. In other words, spend a designated number of days discussing decision making. Begin with the factors that influence personal decisions. Discuss how internal and external influences vary depending on the actual decision being made and how those influences may change as a person grows older. Identify sources of information. Incorporate activities examining perception of risk, correcting misperceptions of peer norms and predicting short- and long-term consequences of personal decisions. Finally, present the steps to making a good decision. Move from simple situations to more complex ones and continue practicing the specific skill until students become competent.

Throughout the decision-making unit, use examples and situations that relate to the six priority areas identified by the Centers for Disease Control and Prevention: (1) behaviors that result in unintentional and intentional injuries; (2) alcohol and other drug use; (3) tobacco use; (4) sexual behaviors that result in HIV infection, other sexually-transmitted disease and unintended pregnancy; (5) imprudent dietary patterns; and (6) inadequate physical activity. This approach may involve some curriculum reorganization, since the traditional ten content areas would be replaced by the six health-risk behavior areas.

The second approach involves integrating skill-building activities within existing content-specific curricula—that is, emphasize one or more skills within a specific content area to meet identified gaps and student needs. For example, decision making could be introduced and emphasized in a sexuality education lesson about why teens choose to have or not to have sex. The decision-making model could be presented in a lesson about whether to use protection to prevent STD, HIV and pregnancy. Communication skills could be introduced during a discussion about family roles, responsibilities and family conflict. And stress-management skills could be introduced during a mental health curriculum unit.

The most comprehensive approach involves incorporating all four generic skills in each health education content area. For example, if the first curriculum unit is substance use, introduce the decision-making model generically, but in class discussions and skill-building activities, use examples and situations specific to substance use. What are the internal and external influences on adolescents' use of substances? Where can students obtain accurate information about the physical and psychological effects of different substances? How harmful is tobacco, alcohol, marijuana, cocaine, etc.? What are the social norms related to substance use? What are the the short- and long-term consequences of substance use? Finally, apply the steps of the decision-making model, using real-life situations related to substance use.

If the second curriculum unit is sexuality education, review the generic skill-building model, but focus class discussions and skill-building activities on sexuality issues. Help students transfer what they learned in the substance use prevention unit by identifying similarities and differences. For example, are the influences on sexual behaviors similar to those of substance use behaviors? Discuss the physical and emotional effects of early sexual activity and the short- and long-term consequences of unprotected sexual intercourse. Similarly, in the nutrition unit, decision making will be reviewed with content-specific examples and situations.

Communication skills also can be presented generically and reinforced in each curriculum unit. But when practicing assertiveness and refusal skills, use content specific scenarios and case studies. Similarly, in a curriculum unit on family health, incorporate activities to strengthen listening and verbal or nonverbal communication skills and to identify communication barriers in the family. In sexuality education, develop roleplays in which young people negotiate the use of condoms for protection.

After presenting key information about goal setting, incorporate activities that predict immediate and long-range physical, emotional, social and legal consequences of substance use, unwanted pregnancy, HIV infection, crash dieting, or drinking and driving on an individual's health and future goals. Finally, related to stress management, describe the "fight or flight" response and follow with a discussion about healthy and unhealthy ways of dealing with stressful situations, such as drinking or using other drugs, overeating or committing suicide.

Whichever approach is used, integrating decision-making, communication, stress-management and goal-setting skills as often as possible will help young people realize that personal and social skills are not just something they learned in school, to be forgotten as soon as they walk out the door, but are an integral part of their lives.

Essential Skills

The development of personal and social skills—decision making, communication, goal setting and stress management—is an essential part of normal psychosocial development. Most often, teens learn these skills by observing and imitating adult role models who also provide opportunities for practice and feedback. For whatever reasons, young people are not mastering these skills before they are confronted with potentially health-compromising decisions. Inadequate skills affect adolescents' ability to have meaningful relationships, cope with daily stressors, make rational decisions, maintain self-control, elicit social support, and, ultimately, succeed at school and achieve future goals.

To meet this need, comprehensive health education programs should be expanded to include personal and social skill-building approaches that have been effective in substance use and pregnancy prevention programs. Incorporating these skills across all content areas will create built-in practice and rehearsal sessions, enabling teens to use their newly developed competencies as they make choices about their personal lives.

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Chapter 12

Preventing Teenage Pregnancy: The Necessity for School and Community Collaboration

Murray L. Vincent, EdD, CHES, Brian F. Geiger, MS, and A. Sandra Willis, PhD

Frank Furstenberg (1976) aptly describes the negative impact of early childbearing: "When parenthood occurs early in adolescence, it often creates a dilemma for the young mother and her child, threatening both their immediate and their long-range interests." The United States has approximately one million teen pregnancies annually, the highest rate of teen pregnancies of any developed nation (Jones et al., 1985; Brindis et al., 1991; Henshaw and Van Vort, 1989).

Sexuality Education: Purpose and Function

If parents and educators could identify the combination of sexual knowledge, attitudes and behaviors that precede first intercourse, it might be possible to interrupt the sequence to prevent unintended pregnancies. However, as Furstenberg notes, there is an "absence of normative boundaries for entering sexual relations."

Most professional educators believe that sexuality education seeks to do the following (Kirby et al., 1991):

- increase students' knowledge about human sexuality
- foster parent/child/teacher communication about sexuality
- encourage youth to abstain from coitus until adulthood
- improve reproductive health skills, including the correct use of contraceptives
- refer sexually active students to community health care and social service providers

Healthy People 2000 specified national sexual risk reduction objectives related to sexuality education, including:

> lowering the proportion of adolescents engaging in sexual intercourse, increasing the proportion of sexually experienced adolescents who have abstained from sexual activity for the previous three months, increasing use of contraception, especially combined methods, by sexually active people aged nineteen and younger, and increasing effectiveness of contraception as measured by decreases in the proportion of pregnancies that occur despite contraceptive use. (U.S. Public Health Service, 1992)

Availability of Sexuality Education

In the early 1980s, it was estimated that 80 percent of U.S. school districts in large urban areas offered separate sexuality education courses or included sex-related topics in other courses such as health and science classes. In 1987-88, an estimated fifty thousand secondary school teachers were providing sex education. Between 67 and 85 percent of U.S. teenagers received classroom sexuality education during the eighties; however, the components of instruction about human sexuality varied widely between schools and teachers (Marsiglio and Mott, 1986; Forrest and Silverman, 1989). Studies of school sexuality education have difficulty precisely assessing the quantity and quality of the instruction; thus, these estimations may be overstated.

Doug Kirby (1985) reviewed the health education research literature to determine the effects of sexuality education on sexual knowledge, attitudes and behaviors. Increased subject-specific knowledge gain was a common result of sexuality education; however, students' sexual attitudes did not significantly change with classroom-based instruction. Students' attitudes and comfort level concerning their personal sexual behaviors and their beliefs about premarital sex, contraceptive use and other sexuality issues are more resistant to change through health education instruction than is level of knowledge (Kirby et al., 1991).

A 1982 survey of 15- to 19-year-old females (Dawson, 1986) revealed that most (84 percent) discussed the menstrual cycle with their parents; 67 percent discussed the biology of reproduction and pregnancy with their parents; and 53 percent discussed contraception. Eighty-eight percent of the sample received formal instruction about the menstrual cycle in school.

Close to 70 percent of the 1,888 young women received classroom instruction on "how pregnancy occurs" and "methods of birth control." One-third of these young women said they knew the most likely time for conception during the menstrual cycle and knew how to use any of 14 methods of birth control. There was no statistically significant relationship between formal reproductive health education instruction and this knowledge.

Effects of Sexuality Education

According to National Survey of Family Growth (NSFG) data, sexuality education was positively related to adolescents' use of contraceptives; however, the effect diminished with time. Of sexually active students who were educated about pregnancy and contraceptives, 62 percent reported current use of contraception, compared with 58 percent who did not receive sex education. Young women who were educated about contraceptive use were more likely to have used a contraceptive during sexual intercourse. Contraceptive education prior to first coitus was related to self-reported use of a contraceptive method during initial intercourse (Dawson, 1986). Length and quality of classroom instruction and student acceptance and comprehension were not available from these data.

During the eighties, classroom instruction in comprehensive health education in American public schools increased significantly (Metropolitan Life Foundation, 1988). Comprehensive health education should include instruction in the following sex-related topics:

- reproductive health education
- pregnancy prevention education
- prevention and control of sexually transmitted diseases
- family life education

Such instruction is not a matter of merely imparting subject-specific knowledge. School curricula for health should also include:

- communication and decision-making skills
- exercises for values identification
- strategies for decision making and problem solving
- education to enhance self-esteem and personal responsibility for health and behavior

The aim is to address both short- and long-term outcomes of health education; for example, increasing knowledge about alternatives to intercourse and reducing unintended pregnancy rates (Deputat and Pavlovich, 1988; Kirby et al., 1991; Saunders, 1991; South Carolina, 1988; Burleson, 1982).

Instructional programs actually have variable effects on students' values related to sexuality, incidence of sexual activity, self-reported use of contraceptives and pregnancy rates. One reason for a lack of correspondence between sexuality education and students' sexual activities is the timing of instruction. According to an editorial in *Family Planning Perspectives* (1986), one-half of adolescents who become sexually active do not receive school-based sexuality education until after first sexual intercourse.

Another determinant of the effect of sexuality education is the length and extent of classroom instruction. The national School Health Education Evaluation revealed that significant effects on students' program-specific knowledge were achieved after fifteen hours of classroom instruction; however, more than fifty hours of instruction were needed to demonstrate "large" effects on students' general health knowledge. Brief discussion of sex-related topics is insufficient to produce change in students' knowledge, attitudes and behaviors. To obtain "medium" changes in health-related practices and "small" changes in attitudes also required fifty or more classroom instruction hours (Connell, Turner and Mason, 1985).

Who's Teaching Sexuality Education?

A recent South Carolina survey queried 160 middle school teachers of health education in 34 urban and rural districts. It revealed that 83 percent of the teachers included instruction on reproduction, 74 percent on sexually transmitted disease, 73 percent on growth and development, 66 percent on pregnancy prevention and 37 percent on family life education. Most teachers (89 percent) used a curriculum guide for instruction on reproductive health. Three-fourths devoted 15 or fewer class periods to instruction on reproductive health during the 1990-91 school year; 8 percent devoted 26 or more classes to this topic. A minimum of 15 hours of reproductive health education, including pregnancy prevention, is mandated by state law for secondary school students at least once during the ninth to twelfth grades.

Less than 4 percent of these school health educators perceived opposition for reproductive health education from the community. School health educators reported greater levels of comfort than confidence in the following areas:

- teaching reproductive health information and skills
- answering students' questions
- using class participation activities
- identifying and using classroom resource materials
- interacting with parents and community agencies

In general, teachers felt less secure in their ability to identify and use community resources and interact with parents for reproductive health education than in tasks requiring internal contacts (inside the school), e.g., obtaining support and assistance from peer educators (Geiger and Saunders, 1992; South Carolina, 1988).

The results of a national survey of seventh- to twelfth-grade public school teachers were reported by Forrest and Silverman (1989). More than four thousand teachers from five areas—health education, physical education, home economics, biology and school nurses—answered questions about sexuality education, including content of actual instruction, topics they wanted to teach, and obstacles to sexuality education. Eighty-nine percent of these teachers had completed specific training for instruction in this content area. Almost all of the teachers surveyed (98 percent) stated that sexuality education is an appropriate area for student education.

More than three-fourths of these teachers reported current or previous experience as a school sexuality educator or had future plans to instruct students on this topic. Sixty percent devoted less than 10 percent of their instructional time to sexuality education. There were gaps between sexuality education content areas actually included in classes and areas teachers thought should be taught. The largest gaps were for sources of birth control, "safer sex" practices and homosexuality. Obstacles to sexuality education included:

- teachers' perceptions of parental pressure
- disinterested students
- lack of support from school administrators
- lack of curricular materials for the subject area

Sexuality Education and Comprehensive Health Education

Duration of instruction is not the only important variable related to health knowledge, attitudes and practices. Broad mandates for a minimum number of hours of public school sexuality education may fail to improve either the quality of health instruction or its effects on students' sexual knowledge and practices. Implementation of instruction on human sexuality requires a curriculum framework for comprehensive health education throughout the grades. Other necessary components include (Muraskin, 1986; Forrest and Silverman, 1989; Saunders and Geiger, 1991; Metropolitan Life Foundation, 1989):

- trained and enthusiastic teachers
- instructional guides for sexual and reproductive health topics
- age-appropriate learning materials
- support from parents, peers and administrators at the school and district levels
- procedures for evaluation and modification of instructional

programs based on progress made toward achieving clearly stated learning objectives

Sexuality education should not be presented in a piecemeal fashion, nor should sexuality textbooks or audiovisual materials be relied upon as substitutes for a comprehensive health education curriculum for the school district. Health education instruction must be sequenced from elementary to secondary grades (age-appropriate), interesting to the students, and integrated across the curriculum. Health education teachers must be trained to instruct students in health knowledge and practices, using standard curricula and instructional materials and creative learning exercises. To increase the effect of health education on students' health-related knowledge, attitudes and practices, instruction should not be limited to school settings. Adult and peer educators in different community settings (churches, youth clubs, recreational facilities, etc.) can teach about positive health behaviors, encourage practice of new health skills, and reinforce personal responsibility for health (Connell, Turner and Mason, 1985; Saunders, 1991; Muraskin, 1986).

School/Community Partnerships

Joy Dryfoos (1990a; 1990b) outlined characteristics of successful school and community partnerships to prevent high-risk behavior, including premarital intercourse and substance abuse among children and adolescents. "Innovative models that directly improved achievement levels included team teaching, cooperative learning, teacher and parent empowerment and school restructuring." When agencies and organizations that were external to schools became the catalyst for school change, both academic and social outcomes were improved. This does not imply that school personnel assumed a subordinate or passive role in the reform of educational efforts for youth; rather, agencies and schools formed a successful alliance or partnership for success (Dryfoos, 1990b).

Murray Vincent and colleagues reported the positive effects of a community-based health information and education intervention in a rural South Carolina county (Vincent, Clearie and Schluchter, 1987). The intervention was based on a collaboration between project researchers, school personnel and members of the community. Group and individual educational sessions focused on the following:

- communication and decision-making skills
- self-esteem
- family and community values
- knowledge of reproductive health, abstinence, pregnancy and contraception

These educational programs were offered to youth, parents, church members and community agency personnel; classroom teachers received sexuality education training. After two years of the program, estimated pregnancy rates (EPR) for 14- to 17-year-old females in the intervention area were significantly lower than for teens in the nonintervention portion of the county and for teens in nearby comparison counties. Adolescent EPRs in the comparison counties did not mirror the dramatic decline for EPRs in the intervention county.

The study was reported in the *Journal of the American Medical Association*. A comprehensive secondary evaluation of this project was completed by Research Triangle Institute (RTI) scientists (funded by the Centers for Disease Control and Prevention). The RTI report verified the accuracy of the original report in attributing the reduction in pregnancies to the combination of school/community programmatic interventions. However, the RTI report suggested that the journal article was lacking in not giving more weight to the impact of proactive school nursing services promoting access to contraceptives (Koo et al., 1992).

This community intervention model for teenage pregnancy prevention exemplifies the six components of successful prevention programs for high-risk youth identified by Dryfoos (1990b) in her review of the literature:

- individual attention
- early identification and intervention
- social skills training
- engagement of peers in interventions
- parental involvement
- link to the world of work

An intervention model based on community involvement and multiple interventions has more potential for success than isolated single interventions to alter the rates of health-compromising behaviors.

The Scope of the Problem

An estimated 10 percent of adolescent women between the ages of 15 and 19 become pregnant each year. Of these pregnancies, approximately 83 percent are unintentional. Seventy-five percent of unintended pregnancies occur due to nonuse or ineffective use of contraceptives (Trussell, 1988). Close to one-half of these pregnancies result in the birth of children, most of whom are raised by adolescent mothers. The remainder of the pregnancies end in miscarriage or abortion.

During the past decade, more unmarried American mothers ages 15 to 44 chose to raise their babies than place them for adoption (Bachrach, Stolley and London, 1992). Adolescent parenthood reduces optimal development of mothers and children by limiting opportunities for the mother's education and job training and by creating a less than optimal environment for the children (Hatcher et al., 1991; Mayer, 1982; Henshaw and Van Vort, 1989).

The U.S. Public Health Service's initiative *Healthy People 2000* specified objectives for sexual risk reduction, including decreased pregnancy rates among girls age 17 and younger, from 71.1 per 1,000 in 1985 to 50 per 1,000 by the year 2000. The estimated 1989 adolescent pregnancy rate was 72.4 per 1,000 (U.S. Public Health Service, 1992). The proportion of teenagers who are sexually active increases with age, with corresponding increases in adolescent pregnancies, abortions and births (Henshaw and Van Vort, 1989).

In 1981, 1.4 percent of 14-year-old girls became pregnant. The percentage of pregnant teenagers in America increased steadily to reach 15 percent of women at the age of 19. The percentage of live births to pregnant teens also increased with chronological age, from 39 percent for 14-year-old females to 60 percent at age 19. Birthrates for adolescent mothers fell to a record low in 1986 (National Center for Health Statistics, 1988). However, data from 1985 indicated higher birthrates for teens in southern states (e.g., Mississippi, Georgia and Louisiana) and the lowest birthrates for New England and Midwestern states (e.g., Connecticut, New Hampshire, Minnesota, and Iowa) (Henshaw and Van Vort, 1989).

Differences Between Racial Groups

Among young women ages 15 to 19, 1981 pregnancy rates for African-American adolescents (163 per 1,000) were nearly twice as high as those for White adolescents (83 per 1,000) in the United States. This trend continued in 1985. Differences in birth rates between racial groups are related to differences in adolescent pregnancy and abortion rates. For instance, in 1981, there were 97 births per 1,000 African-American adolescents versus 45 births per 1,000 White adolescents (Hatcher et al., 1991). In 1985, approximately 30 percent of total births to unmarried women younger than twenty were attributed to White adolescents, 26 percent to African-American adolescents and 7 percent to Hispanic adolescents (Children's Defense Fund, 1988).

The report on the fertility of American women (U.S. Bureau of the Census, 1991) shows 338,000 births to teen mothers during the year preceding June 1990. More than 200,000 of these births were to unmarried adolescent mothers; 40 out of every 1,000 adolescents ages 15 to 19 gave birth during that year. Substantial differences between racial groups for adolescent birth rates were evident: 33 per 1,000 for White females, 71 per 1,000 for African-American females, 50 per 1,000 for Hispanic females. In addition, there were significant racial differences in proportion of childbirths out of wedlock: 90 percent for African-American, 59 percent for White, and 65 percent for Hispanic females between the ages of 15 and 19.

There are also differences among racial groups in rates of adoption placements for women whose pregnancies were unplanned. Data from the 1982 and 1988 National Survey of Family Growth (NSFG) indicated that far fewer African-American or Hispanic mothers chose adoption following childbirth than did White mothers. Multiple factors relate to adoption decisions following unintended pregnancy among unmarried White, non-Hispanic women (Bachrach, Stolley and London, 1992). They include maternal age and level of education, school enrollment and academic performance at the time of conception, job experience and child's gender. Women whose "opportunity costs" of pregnancy and childbirth were greater—e.g., those who had not completed an educational program—were more likely to surrender their children for adoption. One determining factor for a pregnant adolescent's decision to surrender a child for adoption is a thoughtful phase of career exploration in which the teen has considered career options and the educational preparation necessary for those careers (Low, Moely and Willis, 1989).

Consequences of Teen Pregnancy

The consequences of teen pregnancy include multiple health, social and economic problems for the young mother, her infant and society in general. Individual differences in the mother's family background, race and economic status do affect childbirth outcomes; however, there are negative consequences for children and their teen mothers independent of these variables (Hayes, 1987). It is difficult to determine which adverse birth outcomes are due to young maternal age when many other variables are contributing factors. These variables include family income, access to health care and insurance, mother's education and work experience, and social support. Studies suggest that low-income women of any age lack access to adequate prenatal care and lack other resources necessary to the well-being of mother and child (e.g., limited residence and dietary choices) (Dryfoos, 1990a; Furstenberg, 1976).

The rates of perinatal and maternal morbidity and mortality are higher among teenage mothers, particularly for mothers younger than age 15. These outcomes include maternal anemia, hypertension and toxemia, shorter gestation period, miscarriage and stillbirth, prolonged labor, premature births and low birthweight.

Maternal age as a sole risk factor for negative birth outcomes may have been overstated in previous research studies. The effect of the mother's chronological age on birth outcomes is not independent of health and sociodemographic factors. Other significant determinants of poor maternal and child health include

(McAnarney, 1983; Makinson, 1985; Hayes, 1987; Ketterlinus, Henderson and Lamb, 1990):
- poverty
- level of education and vocational preparation
- inadequate prenatal and obstetrical care
- poor nutrition

According to Alexander and Cornely (1987), "prenatal care may serve a gate-keeper function, identifying and funneling expectant mothers to the appropriate level of medical care for delivery." Among adolescents who receive comprehensive prenatal care, health during pregnancy and birth outcomes typically do not differ from those of older women. Comprehensive prenatal care includes medical services, health education instruction and skills training, social support and nutrition assistance (Baldwin and Cain, 1980; Dollfus et al., 1990).

Cognitive Development of Children of Adolescent Mothers

Studies show a relationship between the age of the mother and the child's intellectual development. Children of younger mothers perform less well on standardized measures of intelligence and academic achievement and receive poorer performance evaluations from teachers. They are also more likely to be retained in grades and repeat an early childbearing pattern themselves.

However, the effect of maternal age on measures of academic aptitude is not significant. Poor educational achievement among children of adolescent mothers may result from parents' lack of social and financial resources, ability, willingness, and/or motivation to support and encourage their children's intellectual development (Baldwin and Cain, 1980; Card, 1981; Hayes, 1987; Mayer, 1982).

There is no reliable evidence showing a negative effect on social and emotional development based on the maternal age variable only. Economic factors are more influential. Adverse effects for children are more likely to occur when the adolescent mother raises her child without the aid and support of her parents or the child's father (Baldwin and Cain, 1980; Makinson, 1985).

Maternal Effects of Early Childbearing

Adolescent women who give birth at a young age are more likely to have multiple births and experience greater marital instability than those who postpone childbearing (Trussell and Menken, 1978; Mott, 1986). They tend to be more poorly educated and have lower incomes later in life (Hofferth and Moore, 1979; Marini, 1984; Mott and Marsiglio, 1985; Hayes, 1987).

Personal motivation, work skills and experience, and extent of career exploration also affect occupational success. Teen pregnancy and poor academic performance are not causally related in a simple way. The older the mother at first birth, the more education she is likely to complete. Also, "the more years of schooling a young woman has completed, the more likely she is to delay childbearing" (Hayes, 1987). It is difficult to assess directionality for the relationship between educational attainment and maternal age. A young woman who performs poorly in school may be more likely to drop out whether she is a parent or not. Certainly, parenthood does limit her ability to optimally benefit from educational experiences, and career motivational factors play substantial roles in determining long-term life success (Low, Moely and Willis, 1989).

Economic Outcomes of Adolescent Pregnancy

A longitudinal study conducted by Furstenberg, Brooks-Gunn and Morgan (1987) showed that during the five years after the birth of their first child, adolescent mothers performed more poorly in school than their nonparent peers. However, follow-up data collected seventeen years later revealed that a majority had received a high school diploma, found regular employment and did not have a lifelong dependence on welfare. Unfortunately, these women typically did not achieve the same educational and income levels as their peers who postponed parenthood until later ages. Women who performed well before their first childbirth, had high educational aspirations, and had economically secure and better educated parents were most likely to succeed. Approximately 25 percent of the original sample remained poor and welfare-dependent.

Approximately one-half of all adolescent mothers marry prior to their delivery date, although the percentage of teen mothers who choose not to marry has greatly increased during the past twenty years. Marital relationships between adolescent couples are frequently characterized by conflict, separation and divorce. Not surprisingly, family income is substantially lower among young divorced parents and never-married teen parents than among those with stable marriages (Hayes, 1987; Zelnik and Kantner, 1980; Furstenberg, 1976).

Adolescent mothers are more likely than older mothers to receive public assistance (Aid to Families with Dependent Children (AFDC), food stamps, Medicaid), due to lower educational achievement, less work experience and larger family size. It was estimated that one-half of the national AFDC budget in 1975 was allocated to families with mothers who delivered their first child as a teen. The financial allotments for young mothers are greater, due to a larger average family size (Block and Dubin, 1981; Hayes, 1987).

Historically, teenage childbearing is strongly related to higher completed fertility rates, repeated unintentional and nonmarital births, and closer spacing of births; however, these trends may be diminishing (Hayes, 1987). In 1985, $16.65 billion was spent on families in which children were born to parents in their adolescent years. Costs relevant to each teen birth register at approximately $18,000 (Vincent et al., 1988).

Factors Related to Adolescent Pregnancy

In 1986, it was estimated that 12 million out of 27 million American adolescents were sexually active (Johnson, 1986). In a survey of 36,000 Minnesota youth, 70 percent of the females reported having had sexual intercourse by age 18; most (75 percent) had done so three or fewer times (Blum, 1991). The national *Youth Risk Behavior Survey* (Centers for Disease Control and Prevention, 1992) revealed that 54.2 percent of all ninth-to-twelfth grade students reported having had sexual intercourse; 39.4 percent had sexual intercourse during the three months preceding the survey. African-American students (72 percent) were significantly more likely to have had sexual intercourse than White (52 percent) and Hispanic (53 percent) students.

Zelnik and Kantner (1980) compared the results of three national surveys of adolescents to determine changes in premarital sexual activity from 1971 to 1979. The proportion of 15- to 19-year-old metropolitan-area females who reported sexual intercourse before marriage rose from 30 percent in 1971 to 50 percent in 1979. The largest increase was among unmarried White females; however, African-American females were 40 percent more likely than Whites to be sexually active as teenagers. Among males ages 17 to 21, smaller differences in rates of premarital coitus were reported. Gender differences in proportions of teens who were sexually active were greater among Americans of European descent than among Americans of African descent.

Thompson's (1990) interviews of sexually active teenage girls suggest that a significant change has occurred in teenage romantic relationships. Petting, a practice commonly preceding intercourse as a part of foreplay, and the extent of some adolescents' shared sexual activity before the late 1960s, seems to have become less prevalent among teens since the late 1970s. Many teenagers who were interviewed thought that foreplay activities could be omitted in favor of sexual intercourse, which was perceived to be the mature, valuable part of sexual relations (Thompson, 1984; Haffner, 1988). This perception is unfortunate, since intercourse is the activity most likely to lead to pregnancy and infection with sexually transmitted disease.

Adolescents' Perceptions of Sexuality and Parenthood

Evidence indicates that most unmarried teens do not intend to become pregnant. National surveys of adolescents who became pregnant before marriage revealed a decrease in the proportion who intended to become pregnant from 1971 to 1979 and a corresponding increase in self-reported use of contraception to avoid pregnancy (Zelnik and Kantner, 1980). On the other hand, some adolescents perceive few or no benefits to postponing sexual intercourse and using contraception, particularly teens with limited life options and family role models of teen parenthood (Dryfoos, 1990).

Adolescent pregnancy and early childbirth have positive as well as negative outcomes. Dash (1989) described a decision-making process in which teen pregnancies are intentionally chosen because they represent a path to an alternative role status and environment. Pregnancy and parenthood may enhance a teen's sense of control over the environment and boost self-esteem. Approval by peers and parents for the pregnancy may diminish a teen mother's ability to accurately assess the potential educational, social and financial difficulties associated with delivery of her child (Furstenberg, 1976; Geiger and Morton, 1993).

Lack of Contraception

Adolescents with a strong need for privacy concerning their sexual behavior may find it difficult to communicate their feelings to peers and sexual partners, and particularly difficult to speak to parents and health professionals. One study (Zabin and Clark, 1983) reported an average of 11.5 months between adolescents' initiation of sexual activity and their seeking the services of a family planning clinic. Trussell (1988) reported that the majority of girls do not use reliable contraception for first intercourse and only one-third use contraception regularly. Others have reported that only one in two adolescent women used a contraceptive at first sexual intercourse (Pratt et al., 1984). Approximately one-third of adolescents do not report regular use of contraceptives: 27 percent of White teens, 35 percent of African-American teens, and 32 percent of Hispanic teens (Torres and Singh, 1986).

Why do so many sexually active adolescents not use contraceptives? Contraceptive use may be psychologically inaccessible for adolescents with romantic ideals. The advance planning necessary for effective contraception is inconsistent with the belief that sexual intercourse can only occur spontaneously with passion.

Another factor related to contraceptive use is knowledge about contraceptive methods and their effectiveness. Parents who discourage their adolescents from dating and all premarital sexual activity may also fail to discuss adult sexual relations and the need for contraception during intercourse. Parental values and norms regarding adolescent sexual activity influence teens' sexual behavior and contraceptive use. Opportunities to learn about their own children's sexual activities are lost when a family is silent on matters of sexuality (Hatcher et al., 1991; Baker, Thalberg and Morrison, 1988).

The retrospective 1982 NSFG results showed significant racial differences in adolescent contraceptive usage: 77 percent of Hispanics, 64 percent of African Americans and 45 percent of Whites did not use any protection the first time they had intercourse (Torres and Singh, 1986). National surveys of adolescent contraceptive use indicated that more sexually active White adolescents than African-American adolescents used contraceptives in 1976 and 1979 (Zelnik and Kantner, 1980).

These rates should not be misperceived to be the result of inherent racial differences. Other variables contribute to use of contraceptives among sexually active teens (Burke, 1987). They include:

- sexual knowledge
- access to contraceptives
- family income
- previous conception, educational and job experiences
- family history of premarital pregnancies
- degree of parental communication

Rivara, Sweeney and Henderson (1985) reported that a majority of poor African-American male adolescents they interviewed inaccurately assessed the risk of pregnancy during coitus. These males did not know the effectiveness of different methods of contraceptives. They frequently practiced unprotected intercourse and were unprepared for coitus. Teen fathers were more likely to have families that accepted teenage pregnancy than were nonfathers; premarital pregnancies were less common among mothers and siblings of the latter group.

The group of sexually active 14- to 19-year-old African-American males previously identified spoke of barriers to contraceptive use, including:

- belief that sex is less enjoyable with contraception
- negative responses from their female partners
- perceived health risks
- belief that they would be "hassled" at a health clinic
- previous negative experience obtaining contraceptives
- high cost

Perceived difficulties in obtaining and using contraceptives did not differ significantly between males who were fathers and those who were not.

Research conducted in other developed nations reveals reductions in teen pregnancy rates when contraceptive access is improved. In the United States, a vocal minority purports that adolescent sexual activity and pregnancies are legitimized by increasing teens' access to contraceptives and knowledge about human sexuality. Negative attitudes toward sexuality education and access to contraceptives for youth can be a significant obstacle for pregnancy prevention programs (Hatcher et al., 1991; Trussell, 1988).

Some adolescents are responsible contraceptive users. One study (Zelnik and Kantner, 1980) reported increased proportions of regular and occasional contraceptive use among metropolitan area adolescents from 1976 to 1979. Of the sexually active male and female youth surveyed by the Centers for Disease Control and Prevention (1992), close to 80 percent reported using contraception during their last sexual intercourse. Of sexually active adolescent females, 81 percent of Whites, 71 percent of African Americans, and 63 percent of Hispanics reported use of contraception. Condoms were chosen as a contraceptive by 40 percent of female and 49.4 percent of male sexually active ninth to twelfth grade students during their last sexual intercourse.

Community Opposition to Sexuality Education

Sexuality education is a controversial topic in many communities (Kirby et al., 1991). Some parents question sexuality education in the schools on legitimate dimensions: adequacy of training of sexuality teachers; opportunities for parental review of curricula, textbooks and instructional aids; and guidelines for selection and use of learning materials (Scales, 1982). A vocal minority of parent and community groups apply pressure to school systems to limit or eliminate student exposure to sex education on the basis that sex education undermines family values, promotes sexual promiscuity, or encourages toleration of "abnormal or deviant" sexual activities (Schlafly, 1981; McAuley, 1982). Is there evidence to show that education about human sexuality is linked to increased sexual activity, including coitus among youth?

Data analyzed in 1982 by NSFG showed that exposure to contraceptive education had no consistent effect on initiation of intercourse. A 1984 study, the National Longitudinal Survey of Work Experience of Youth, found that prior sexuality education had a weak effect on age of first sexual intercourse. The strength of the sexuality education effect on first coitus at ages 15 and 16 is weaker than effects exerted by other variables, e.g., church attendance, parental education and ethnicity. For example, youth whose church attendance was irregular, whose parents completed fewer than twelve years of school, and who were Americans of African descent were significantly more likely to have had first intercourse at age 15 (Marsiglio and Mott, 1986).

Other research findings negate the assumption that increased sexual knowledge results in increased sexual activity. Following student participation in an urban school-based program for pregnancy prevention, pregnancy rates were reduced, and students who were not sexually active at the start of the program postponed sexual activity (Zabin et al., 1986). The program combined sexuality education, counseling and contraceptive services.

A recent major study in California (Kirby et al., 1991) had similar results. An examination of the effects of *Reducing the Risk* (Barth, 1989), a curriculum based on social learning theory, social inoculation theory and cognitive-behavior theory, employed random assignment of classrooms to treatment and control groups in 13 California high schools. The use of the curriculum significantly increased participants' knowledge and parent/child communication about abstinence and contraception. Among students who were virgins at pretest, the educational intervention significantly reduced the likelihood that they would have had intercourse eighteen months later. Frequency of sexual intercourse or use of birth control among sexually experienced students, however, did not change during the program intervention. An assessment of six school-based clinics corroborates these findings (Kirby, Waszak and Ziegler, 1989) and provides evidence against the suggestion that sexuality education leads to sexual promiscuity.

Community surveys have indicated that a majority of parents support school sexuality education, particularly instruction related to abstinence from sexual intercourse and prevention of unintended pregnancy and sexually transmitted disease (Scales, 1982; Gordon, 1982; Forrest and Silverman, 1989). In one survey of rural southern parents in 105 households, 32 percent said sexuality education was "more important" and 53 percent indicated it was "about as important" as other academic subjects. More than one-third of these parents (37 percent) believed that sexuality education should begin by grade six or before. Seven out of eleven sexuality education content areas were acceptable to 90 percent or more of the householders (Vincent et al., 1985):

- pregnancy and childbirth
- birth control and family planning
- making sexual decisions

- physical and growth changes
- dating behavior
- venereal diseases
- marriage responsibilities
- rape and sexual assaults

Implications for the Future

This wealth of statistical evidence from reputable studies delivers a powerful message. American youth are sexually active at an early age, and there appears to be no evidence that this precocious behavior will change. These youth seldom use contraceptives at first sexual intercourse. They remain at high risk due to the absence of or episodic use of contraception in their continuing sexual encounters. Adolescents do not comprehend the realities of child-bearing and parenthood, and many of them become parents at a too-early age.

Confounding the situation is a parental and societal veil of silence and avoidance of these realities, which perpetuates ignorance and skills deficiencies among youth. Additionally, a vocal minority vigorously oppose efforts to educate youth to become problem solvers and critical thinkers. Resolving a major sociocultural problem such as teenage pregnancy will require an application of all the research findings addressed in this assessment of the pertinent issues.

Action Tasks for Communities

Communities must come to grips with the issues. Teen pregnancy is a problem of the entire community, and the community has a responsibility to resolve this dilemma through collaborative planning and delivery of educational programs and health services. Multiple interventions need to be directed to different targeted groups and organizations to provide a dosage level commensurate with the magnitude of the problem. "Magic bullets" do not exist, and isolated sporadic interventions will likely be doomed to fail.

The adults in a community influence youth. Aware and educated adults function as parents, teachers, religious advisors and medical providers. They need to set the following tasks for their communities:

- Involve representative organizations, agencies and community stakeholders in planning task forces and advisory groups.
- Hold public forums to develop community recognition and ownership of the problems of teen pregnancy.
- Foster the understanding that teen pregnancy is symptomatic of a community in need of education about the many dimensions of healthy human sexuality.
- Organize and assist religious organizations, agencies and others to provide sexuality-education-related programs for all adult citizens, including:
  - — the elderly
  - — midlife, empty-nest parents
  - — parents of healthy and troubled adolescents
  - — couples anticipating parenthood
  - — persons anticipating marriage
- Cooperatively plan to provide medical and public health services that ensure confidential and easy access to contraceptive services, pregnancy testing, counseling and abortion services for all citizens, and especially for teens.
- Reaffirm the multiple contributors to teen pregnancy and provide for job-skills training, career planning, crisis intervention, well-baby care, prenatal care and other broad-based human services.

Action Tasks for Schools

Schools must be the lead organizations in community efforts. Children and adolescents from age four to eighteen attend school and are the recipients of the curricula provided. The curricula must be planned and sequenced so that graduates will be "sexually educated." Age-appropriate curricular content must be designed to develop the cognitive, attitudinal and behavioral skills necessary for wise decision making. "Too little, too late" curricula must be replaced by those that address the realities of the behavioral practices of youth. Abstinence and postponement of first sexual intercourse can be vigorously promoted; however, sexually active youth must also be educated to use contraceptives and available family planning services. The schools' tasks include the following:

- Assess the existing status and improve the K-12 sexuality education component of the school health education curriculum.
- Affirm that sexuality education is comprehensive and includes the biological, social, psychological, spiritual and family dimensions as focal points in the development of knowledge, attitudes and skills.
- Require all teachers, and especially those with specific responsibilities for sexuality education, to receive academic preparation to positively and correctly implement the chosen curricula.
- Solicit and involve outside agencies and organizations to enter the schools and provide sexuality education programs and services.
- Provide comprehensive school nursing services that include health status assessments, sexuality instruction and counseling, and pregnancy testing.
- Provide broad-based counseling and guidance services for healthy and troubled youth. Include life-options planning, social skills training and rehabilitative services.

- Establish linkages to medical and public health providers to allow easy access to services—especially those specific to reproductive health.

Prevention has never been more clearly needed. The potential talents lost among our teen parents, the personal suffering, and the cyclical debilitating effects on the innocent children born to children deserve our undivided attention and concentrated efforts. Community concern and commitment are essential. Yet success in reducing teen pregnancy is only likely to occur when financial resources are allocated to hire professionals with the ability to plan, manage and evaluate the collaborative interventions that a dedicated community can provide.

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Chapter 13

Tobacco Use Prevention

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In 1964, the first Surgeon General's Report on Smoking and Health suggested that smoking was related to lung cancer and other diseases. This report led to the warning label that began to appear on cigarette packages in 1966. The label read: "Cigarette smoking may be hazardous to your health."

More recent statements from the Surgeon General's office are very specific. C. Everett Koop, Surgeon General of the United States from 1981 to 1989, has written many times about the health hazards of tobacco use. One of his summaries includes the following statement: "Cigarette smoking is associated with more deaths and illness than drugs, alcohol, accidents and AIDS combined" (Koop, 1991). By the early nineties, deaths due to cigarettes were estimated at more than 434,000 each year. That works out to about 1,200 deaths each day, fifty each hour.

Nicotine, the drug in tobacco, is a powerful, addictive drug, as addictive as heroin and crack cocaine. Many experts believe that cigarettes serve as a gateway drug to allow children and teenagers to experiment with other illegal drugs such as marijuana, cocaine and heroin. It is much easier for a youngster to smoke marijuana or crack after having smoked cigarettes (Jacobs, 1990).

The High Costs of Tobacco Use

Ample research supports the conclusion that tobacco can kill. Tobacco use causes cancer of the mouth, tongue, face, lips, larynx, esophagus, stomach, pancreas, bladder and kidneys. Tobacco use is also responsible for chronic bronchitis, emphysema, chronic obstructive pulmonary disease, heart disease, strokes and wrinkles.

Other studies have linked tobacco to a variety of other health problems, including back pain (due to decrease of oxygen levels to lumbar disks), cervical cancer, diabetes (due to poor absorption of insulin), drug interactions, ear infections, gastrointestinal cancer, infertility, low birth rate, leukemia (carcinogens, such as benzopyrene, are found in tobacco), occupational lung cancer, osteoporosis, premature aging, slow recovery from surgery, poor nutrition, tooth loss and fires (*Bottom Line*, 1992).

Tobacco takes an economic toll as well. In California alone, smoking costs more than $7.6 billion a year in health care expenditures and lost productivity due to disease and early death (Rice and Max, 1992). Nationwide, Action for Smoking and Health estimates that smoking costs the American economy more than $100 billion a year (Banzhaf, 1993).

Secondhand Smoke

Environmental tobacco smoke (ETS), also called secondhand smoke, is also a health concern. Thousands of deaths annually can be attributed to environmental exposure to tobacco smoke (Glantz and Parmley, 1991). A person in a smoke-filled room for eight hours a day will smoke the equivalent of one cigarette each hour just by being in the room, according to recent research. Unborn fetuses take in the smoke their mothers consume. Children whose parents smoke have more respiratory infections, colds and general childhood illness as a result of their parents' smoking habits (Glantz, 1992; Koop, 1989; U.S. Department of Health and Human Services, 1986).

The World Health Organization (1991) has issued a summary of the proven health effects of exposure to ETS. These effects include respiratory problems; irritation of eyes, nose and throat; and lung cancer. Children also suffer the effects of ETS. Children whose parents smoke have up to 300,000 lower-respiratory infections such as pneumonia and bronchitis each year, up to one million asthma attacks, and up to 15,000 hospitalizations. They also suffer increased middle ear effusion and reduced levels of lung function (U.S. EPA, 1992).

Glantz and Parmley (1991) estimate that ETS is associated with 53,000 deaths each year in the United States. Of these deaths, 37,000 are related to heart and blood vessel disease, 4,000 to lung cancer and 12,000 to other cancers.

More than two million California nonsmokers were exposed to secondhand smoke in the workplace in 1990. As part of the 1990 California Tobacco Survey, Ron Borland reported on 7,162 adult nonsmoking, indoor workers (California Department of Health Services, 1990). The rate of ETS exposure decreased with increasing education. Workers with less than a high school education reported an exposure rate of 43.1 percent, while only 18.6 percent of those with at least a college education reported ETS exposure. The survey concluded, "For industries and other institutions in which the employees are likely to be in these [high risk] demographic groups, high priority should be given to establishing ordinances mandating smokefree worksites."

The report also states, "Our data indicate that the only way to protect nonsmokers' health is with a smokefree worksite. The available evidence indicates that bans are accepted by smokers once the bans are implemented. Although these facts alone will motivate many employers to take further action, we also must work toward establishing local smoking ordinances that require smokefree work sites to protect the health of nonsmoking workers" (California Department of Health Services, 1990).

Children's Risk Factors

Today, most of the American population acknowledges the health hazards of cigarettes and tobacco products, but few see the implications of tobacco's pervasiveness in our society for children, school settings, businesses, cities and states throughout the United States. Nicotine is an *addictive drug.* Cigarette smokers are drug addicts. As with any drug, children are at risk if they have a high number of the risk factors for drug use (Hawkins, Lishner and Catalano, 1985). These factors include:

- economic and social deprivation
- low neighborhood attachment and high disorganization
- community norms and laws favorable to the use of tobacco, alcohol and other drugs
- availability of tobacco, alcohol and other drugs
- family management problems, including lack of clear expectations for children's behavior, lack of monitoring, inconsistent or excessively severe discipline, lack of caring
- use of tobacco, alcohol or other drugs by parents
- parents' low expectations for children's success
- family history of alcoholism
- lack of a clear school policy regarding tobacco use

- availability of tobacco, alcohol or drugs on campus
- changing schools often
- academic failure
- lack of involvement in school activities
- little commitment to school
- alienation and rebelliousness
- antisocial behavior in early childhood and early adolescence
- favorable attitudes toward drug use
- early first use of tobacco products
- greater influence by and reliance on peers than parents
- friends who use tobacco, alcohol and other drugs or sanction their use.

Children from Asian, Hispanic, Middle Eastern and other backgrounds may be at high risk for tobacco use because smoking is not only accepted, but promoted in their cultures. For example, Southeast Asian families often use cigarettes as party favors at weddings. Many new immigrants have been influenced by Western tobacco companies' advertising in their countries to believe that smoking is a valued aspect of American society. In addition, they may not be aware of the health hazards of tobacco use.

The American Cancer Society is now providing health education materials in many languages to help recent arrivals to the United States learn more about smoking and health risks. Classroom teachers may easily convince preteen and high school immigrant students of the health risks, but their parents are not as easily won over. However, students may serve as health educators for their parents while they become acculturated to the United States.

Business and Politics

Tobacco companies are businesses. As in any business, the ultimate goal is to turn a profit and stay in business. Tobacco companies spend in excess of $7 million every day on advertising and promotion. That means they spend more than $3 billion per year, or about $100 every second. For every dollar spent opposing tobacco use, the tobacco industry spends $4,000 to refute the warnings.

Most tobacco companies are huge international corporations. These companies have recently sought to obtain political and economic influence by acquiring subsidiaries of non-tobacco-growing companies. While diversification of any business makes good sense, the political impact of tobacco companies' diversification can wield a powerful influence on other businesses as well as governmental agencies. For example, if a publisher who is sensitive to tobacco-related health problems refuses to carry tobacco advertising in a magazine, the tobacco company can cancel advertising for its other products, such as food products, in that publication.

During the 1989/1990 election cycle, tobacco and alcohol lobbies were big spenders. Eighty percent (420 out of 525) of the members of the Congress received money from the tobacco industry, either in campaign contributions or "honoraria." Although honoraria may no longer be used in this way, the tobacco lobby has had a strong influence in Washington. One result has been that the United States ranks last among industrialized countries in the amount of tax collected on tobacco products.

The Los Angeles Daily News reported in 1991 that tobacco lobbyists were among the biggest spenders in Sacramento, California's state capital. "They buy dinners, concert tickets, limousine service, trips to New York and a grab-bag of other gifts for legislators and their staff members, and at the California State Capitol, the tobacco industry seldom loses" (U.C. San Diego, 1992). Diane Kaiser, a lobbyist for the American Heart Association, described the situation: "All the tobacco lobbyists have to do is walk into a committee room and the message is clear to legislators: Don't vote against them."

The California Experience

In January 1989, California implemented a voter initiative (Proposition 99) that added a tax of 25 cents per package on cigarettes sold in California. By the end of the first year, more than one billion dollars had been raised by the new tax, despite a $21 million counterattack by the tobacco industry. Funds collected under the new law go toward health education, hospital services, physician services, research and public resources. Research indicates that action resulting from the passage of Proposition 99 reduced tobacco consumption in the state by 17 percent in the first three years (Burns and Pierce, 1992).

Raising cigarette taxes appears to be an effective public health intervention, as demonstrated not only in California but also in Canada. Canadians pay more for cigarettes—in excess of $3.00 a pack—and the tobacco sales decline in Canada is faster than that in the United States (Peterson et al., 1992; Kaiserman and Rogers, 1991).

Most California cities, government offices and even private businesses either restrict or completely ban smoking indoors. Many universities do not allow any smoking indoors, and even some outdoor sports stadiums have banned smoking or confined it to a special section. Many county detention facilities have also banned smoking.

Many California communities have passed laws that ban smoking even in restaurants. Despite restaurant owners' concern about loss of business due to the smoking ban, data indicates no such loss (Smith and Glantz, 1992). Studies have shown that no-smoking ordinances actually benefit restaurants by increasing slightly the fraction of total retail sales that go to restaurants. The research counters the tobacco industry claim that no-smoking ordinances cause a 30 percent reduction in business.

"The overall conclusion is that 100 percent smokefree restaurant ordinances do not adversely affect restaurant sales within a community or lead to a shift in patronage to restaurants in communities with no such ordinances," says Stanton A. Glantz, professor of medicine at the University of California, San Francisco, and investigator at the Institute for Health Policy and Cardiovascular Research. In four cities with 100 percent smokefree restaurants, the fraction of total retail sales that went to restaurants in those communities *increased* from an average of 12.7 percent to 13.9 percent after the laws were in force (Smith and Glantz, 1992).

The Youth Market

Tobacco companies insist that their advertisements are merely designed to encourage adults to switch brands and flatly deny any targeted efforts toward youth. Doctors Ought to Care (DOC), an antismoking activist organization of doctors, has been countering this message around the United States and the world.

A well-publicized edition of the *Journal of the American Medical Association* (December 11, 1991) was able to explain that not only have tobacco companies been targeting youth, but some kids were able to recognize the Camel cigarette "Old Joe" character more readily than Disney's Mickey Mouse (Fischer and Schwartz, 1991).

When children played a game in which they were asked to place 22 product logos—including products for adults and children—on a game board featuring twelve products—including Mickey Mouse, pizza, hamburgers and automobiles—30 percent of the three year olds were able to match the Old Joe cartoon with Camel cigarettes.

In 1984, the Tobacco Institute produced a booklet called "Helping Youth Decide." The purported intent was to help children look at adult smoking behaviors. However, the booklet was attacked by the American Lung Association and others for lack of information on the health hazards of smoking. The document was being promoted through the National Association of School Boards. In response to public pressure, the school board group broke their affiliation with the Tobacco Institute.

In 1992, the Tobacco Institute produced a booklet called *Helping Youth Say No.* The authors claim that students need to recognize that only adults should decide about smoking. While this may *seem* to be a positive step in antitobacco education, the guide may actually encourage youth to look up to and emulate adult behaviors—i.e., smoking. The booklet also avoids any mention of cancer, lung disease, heart disease, emphysema or death; it focuses only on the misleading message that smoking is an adult decision. As educators are well aware, most teenagers want nothing more than to be adults, making adult decisions.

Ironically, this booklet can serve as an excellent teaching tool. Teachers can have their students carefully read the booklet to locate any messages related to the health problems of smoking and determine the real message of the Tobacco Institute. With careful discussion and analysis, educators can use this booklet to illustrate to students the institute's false and misleading message.

RJR Nabisco has also disseminated a program called *Right Decisions, Right Now.* In San Diego, California, the San Diego

City Unified School District rejected this program, stating, "We consider it a conflict of interest and of our philosophy to have your name associated with any comprehensive health education and tobacco use prevention program" (Tobacco Education Oversight Committee, 1993).

In recent years, DOC has focused attention on the pervasiveness of tobacco advertising at televised sporting events. In 1971, television advertising for tobacco products was banned. However, tobacco companies continue to sponsor televised events such as the Virginia Slims tennis tournaments and the Winston Cup racing circuit. Tobacco advertisements and sponsorships in sports stadiums are also widely televised.

Dr. Eric Solberg, writing in *DOC News and Views,* called for efforts "to get the U.S. Justice Department to act on these televised tobacco promotions masquerading as sports events." "If the Attorney General of the United States were to enforce the Public Health Cigarette Smoking Act of 1969," Solberg wrote, "complete with a $10,000 fine for each violation of the law, televised sports sponsored by cigarette and other tobacco product manufacturers would become extinct in the United States" (Solberg, 1992).

Educating Our Youth

In 1989, 2.6 million children between age 12 and 17 smoked cigarettes, and 1.5 million (57.5 percent) bought their own cigarettes; 85 percent of the purchases were from small stores. Tobacco-related diseases occur at higher rates for persons who start smoking at younger ages. As Altman et al. (1991) state, "Access to tobacco is conducive to developing and maintaining a tobacco addiction. In field trials around the country, minors' attempts to purchase tobacco from stores and vending machines have been successful more than 50 percent of the time." Despite laws in 44 states and the District of Columbia that prohibit the sale of tobacco products to minors, underaged youth usually have been successful in their attempts to purchase tobacco. In fact, their success rate in purchasing from vending machines is almost 100 percent (STAT, 1991).

As laws prohibiting sales of tobacco products to minors are passed and enforced, children who cannot purchase cigarettes will be at much less at risk for health problems. Educational interventions directed at vendors to decrease or eliminate tobacco sales at the retail level have resulted in some temporary reduction of sales to minors, but the greatest decrease of sales to underage buyers has been documented in communities that have active supervision or surveillance of retail stores accompanied with substantial penalties for noncompliance (Feighery and Altman, 1991). Law enforcement officers need to be as vigilant with tobacco sales and use by minors as they are with alcohol.

From November 1990 until June 1991, the American Lung Association worked with the Latino Tobacco Free Coalition in the Los Angeles area to implement a student "sting" operation (with parental consent and approval) that was able to dramatically lower sales of tobacco to minors. The operation began by posting California Penal Code 308 at locations where cigarettes were sold. The penal code section states: "Unlawful to sell to persons under 18 years of age tobacco, cigarette or cigarette papers, or any preparation of tobacco, or any other instrument or paraphernalia that is designed for the smoking or ingestion of tobacco, products prepared from tobacco, or any controlled substance." Minors were then videotaped purchasing cigarettes. Later, vendors who had sold cigarettes to minors were visited by police officers and tactfully reminded about the law.

The program produced a significant decrease in purchases of cigarettes by minors. A follow-up study of 1,400 vendors found that while 70 percent were selling to minors before the sting, only 30 percent sold to minors after the sting. This represents a 57 percent reduction in the number of vendors selling tobacco products to minors. At the end of one year, the ratio was about 50 percent of vendors selling and 50 percent not selling to minors (Loya, 1993). A teacher's guidebook based on the program, "Kicking Butt," has been produced for teachers to use (Loya and Vidstrand, 1990).

Despite the continued efforts of health educators to help young people understand the dangers of tobacco use, many children and youth are not concerned with statistics about chronic problems such as cancer, emphysema and heart disease. Information about other drawbacks of tobacco addiction, such as yellow and brown stains on teeth, bad breath, smelly hair, stinky clothes, wrinkles and a smelly house, may be more relevant, particularly if it's suggested that such effects are a turn-off for most potential dating partners. The use of humor and music may also help students be more receptive to the message.

Statistical data about deaths from tobacco use are often hard to visualize. A simple way to dramatize the hundreds of thousands of deaths a year in the United States due to tobacco use is to ask a typical, large middle or high school class of 38 students to gaze at the seats they vacate at the end of a one-hour session. Statistically speaking, everyone in that class will die as the bell rings. At least this many deaths occur twenty-four hours a day, seven days a week, in the United States alone.

Students can be empowered to become activists in the crusade against tobacco use. In the summer of 1990, during a year-round school session at a predominantly Hispanic Los Angeles middle school, the makers of Skoal chewing tobacco were advertising their deadly chew to sixth graders. A large sign, written in Spanish, was in direct view across the street from the school. The sign's ethnically related focus suggested that chewing tobacco gave men a macho image.

Classroom teachers, along with the American Lung Association, American Cancer Society, California Association of School Health Educators and other antismoking groups, called a press conference, attended by students, at the school. The resulting media coverage lead to the sign being removed within five days. Students watched the sign removal, cheering and waving at the camera crews. Students also make very effective speakers at public hearings on tobacco use prevention.

Recommendations for Action

The health risks of tobacco use are very clear today. The tobacco industry, with its well-organized and heavily funded marketing staff, both in the United States and overseas, presents a major health challenge to Americans today. The passing of laws to increase taxes on cigarettes does result in the decline of cigarette sales. Combined with efforts aimed at the prohibition of sales to minors, such taxes could serve to dramatically reduce smoking in America and help citizens to reach the public health objectives for the year 2000 set by *Healthy People 2000* (U.S. Department of Health and Human Services, 1991). Objectives 3.1, 3.2 and 3.3 relate to tobacco use and the reduction of deaths due to coronary heart disease, lung cancer and chronic obstructive pulmonary disease.

The following recommendations for interventions at all levels, from early childhood education to community action, including state and national political action, could help eliminate the problems of tobacco addiction.

Education

- Provide comprehensive health education for kindergarten through grade six in all U.S. schools. Include a full year of comprehensive health education in middle school and high school. Classes should be taught by certified health educators. Even preschool children benefit from comprehensive health education and antismoking campaigns.

  Comprehensive health education addresses all health-compromising behaviors, including tobacco use. It helps foster healthy attitudes and behaviors about substance use, including tobacco, and promotes healthy lifestyles. In addition to offering information about the effects of tobacco and other substance use, a comprehensive health program helps students develop skills to avoid risky behaviors (Fetro, 1991).
- State-of-the-art classroom methods, such as computer-assisted interactive instruction and videodisc interactive teaching based on cooperative learning techniques, may have an additional impact on students. Intensive prevention programs using roleplaying and refusal-skill techniques should start at grade four, if not sooner, and continue through grade twelve.
- Train students as health education peer counselors to help classmates overcome smoking addiction. Offer smoking cessation programs for adults and students, funded by tobacco education taxes, at both business and school sites.
- Develop special classes in health education to promote health advocacy. Students could present data at city council meetings and school board meetings and advocate to eliminate smoking in the school setting.
- Community antismoking coalitions can involve high school students, civic leaders and community health agencies. Students could earn community service credits toward graduation. These groups could work with law enforcement to develop

sting operations to eliminate tobacco sales to minors.

- Promote a smokefree environment in all schools, not only for students but for visitors, faculty and other staff. Use outreach programs to teach parents and other family members the importance of being role models for their children, especially in relation to tobacco use. Train students from families with limited English skills to act as health educators for their parents and family members to teach them the health risks of smoking and tobacco products.

Legislation

- The Secretary of Health and Human Services has made the following recommendations (U.S. Department of Health and Human Services, 1990):
  - — Institute 19 years as the minimum age for legal tobacco sales.
  - — Create a tobacco sales licensing system similar to that for alcoholic beverages.
  - — Establish a graduated schedule of penalties for illegal sales, with separate penalties for failure to post a sign regarding legal age of purchase.
  - — Place primary responsibility for enforcement with a designated state agency, with participation and input from local law enforcement and public health officials.
  - — Use civil penalties and local courts to assess fines.
  - — Ban cigarette vending machines.

- In addition to banning the sale and distribution of tobacco products through vending machines, outlaw the sale of single cigarettes from any location.
- Pass and enforce laws that prohibit the purchase, distribution and use of tobacco by minors. Support laws such as those in

California that discourage the use of tobacco products through taxation. Following the Canadian model, taxes could be raised to as much as 75 percent of the retail sales price of cigarettes.

- Eliminate tobacco subsidies while providing incentives for tobacco farmers to produce other edible crops. Ban the exportation of tobacco products to other countries.
- Ban smoking in all indoor public places such as restaurants, bars, shopping malls and sports arenas. Prohibit smoking on all public transit, including but not limited to taxis and buses and the ticket, boarding and waiting areas of public transit depots.
- Prohibit tobacco advertising and promotion in any facility owned by a city or any agency of a city, county or state government that hosts athletic events, as well as other government-owned premises, including facilities and parks. Prohibit tobacco advertising and promotion within a two-mile radius of schools, community centers and churches.
- Develop company or governmental policies to hire only nonsmokers, especially as police officers and firefighters, and offer nonsmoking employees lower rates on health insurance and life insurance. Products such as "Smoke Check," an ETS monitoring badge, can be worn by individuals to measure daily exposure to environmental smoke products.

Looking Forward

"I do not believe the United States will ever again be a growing market for tobacco products," Dr. Koop has stated. "The curve is going down at an accelerated pace. But the tobacco companies have not given up" (Koop, 1991). Koop believes there are three major battles to be fought:

- cigarette vending machines
- cigarette advertising
- the international power of the tobacco companies

As the United States approaches the year 2000, we look forward to a time when the national health objectives on tobacco use are met or exceeded. Children, teenagers and young adults will no longer accept cigarette and tobacco products as normal, sensible behavior.

Tobacco companies will eliminate the glitzy advertising and promotion of tobacco products and concentrate on other products for which death is not the end result of product usage. Government will recognize and reinforce the scientific data related to complete freedom from tobacco use. Families will develop positive models for their children to emulate while living in a healthy environment. American homes, cars and hotel rooms will no longer be permeated with the smell of tobacco smoke. Americans will live longer, healthier lives—tobacco free.

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Chapter 14

Alcohol and Other Drug Use Prevention Education

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The quality of life of today's adolescents is not what it should be. Drug use by children and adolescents inhibits, perhaps even blocks, their potential to grow to healthy adulthood, to meet life's challenges and to be satisfied human beings. Drug use by a small but significant percentage of the student-age population robs this country of productive, contributing citizens. It delays emotional maturity, social development, and in some cases, even physical growth of young people. It robs a crucial segment of our population of a secure, carefree and enjoyable youth. Drug use often robs young people of life itself.

The Congress of the United States acknowledged these effects in its *Adolescent Health* report, compiled by the Office of Technology Assessment (1991). The report presented an appropriate vision of adolescence as "the beginning of the productive phase of life where young people are contributing members of society, meet commitments to families and friends, and accept the responsibilities of citizenship."

The literature of both education and health in general recognizes the threat of drug use among school-age populations. During the last two decades, thousands of papers have been written about drug use prevention. Entire journals have been devoted to the subject; successful businesses have been built around the need for drug education curriculum materials; and extensive research has been conducted, much of it accurately documenting trends in use patterns.

The National Education Goals for the year 2000 include the following:

> Every school in America (by the year 2000) will be free of drugs and violence and will offer a safe, disciplined environment conducive to learning. (National Education Goals Panel, 1991)

The governors who authored this goal acknowledge the significant problems our country faces related to drug use among youth. *Healthy People 2000* (U.S. Department of Health and Human Services, 1991) presents more than two hundred objectives addressing health threats ranging from communicable disease to violent acts. Several of the objectives directly relate to drug use by student-age populations, for example:

> Increase the proportion of high school seniors who associate risk of physical or psychological harm with the heavy use of alcohol, regular use of marijuana, and experimentation with cocaine. (Objective 4.10)

These goals are direct challenges to professional educators, educational administrators, and public and school health professionals. Those who work with youth have an obligation to give every student an opportunity to learn. They are also obligated to work toward solutions to the drug-use problems children face. No one can stand by and assume that someone else will do it; all must get involved. Several challenges face public school and public health personnel as they confront the problems stemming from drug use among the nation's youth. There is much to consider concerning educational intervention in one of the greatest challenges facing the United States—drug use by its young people.

The Scope of the Problem

Much information about drug use among school-age populations is available. The National Adolescent Student Health Survey (ASHA, AAHE and SOPHE, 1989) indicated that students of this age group do use drugs. According to the National Commission on Drug-Free Schools (1990), when alcohol is included in the definition of illegal drugs, more than 90 percent of high school graduates have used illegal drugs.

Alcohol is, in fact, illegal for school-age populations. It is also the drug of choice among students, with more than 90 percent of high school seniors reporting consumption of alcohol. Students as young as grade three have used alcohol and tobacco, and many even younger children have been exposed to illicit drugs through peers, older siblings and parents (National Commission on Drug-Free Schools, 1990).

Student attitudes concerning the use of drugs, including alcohol and tobacco, have changed. The perception among students that all drugs are harmful was at its highest point in over a decade in 1990 (National Commission on Drug-Free Schools, 1990). With the exception of alcohol, the rate of most illicit drug use is falling. Illegal drug use by high school seniors decreased from a high of 66 percent in 1981 to 51 percent in 1989 (Johnston, O'Malley and Bachman, 1989).

However, increased use of all drugs is seen among disadvantaged youth (Newcomb and Bentler, 1989). Heavier use is also found in disturbed families in which there are drug-use role models (Hawkins et al., 1986). Programs to address the family factors have become more prolific and claim more success. Yet in some homes, drug use, particularly the use of alcohol and tobacco, remains common.

Younger students look to the home and to family members as sources of values and information related to drug use (Hawkins et al., 1986). Upon entering adolescence, these same students turn to peers for information and for positive reinforcement of their behavior (Pruitt et al., 1991). This change underscores the Carnegie Commission's characterization of the middle school years as a "turning point" in a child's life—a point at which decisions about the present dramatically affect the future (Carnegie Council on Adolescent Development, 1989).

Institutional responses to drug-use problems have been significant. Health educators and administrators in schools now, even more than in the past, recognize that drug use is a problem. They are developing programs to help students understand and resist pressure to use drugs. Professionals in public health fields are doing the same.

Federal funding for drug education and prevention efforts increased substantially in the 1980s, to a great extent due to laws such as the Drug-Free Schools and Communities Act of 1986 and the Anti-Drug Abuse Act of 1988. The National Commission on Drug-Free Schools found that the majority of schools in the United States had some type of drug education and prevention programs by 1990.

In many communities, even without local or federal financial support, parents have taken the lead in fighting drugs by forming community action committees, pressuring public officials and lobbying for local action to combat drug use. In many other communities, however, school policies have limited the role of volunteers and parents in fundraising and similar tasks related to drug-use prevention. Overall, participation in parental groups is increasing, and tolerance of the problems associated with drug use, crime and violent behavior is decreasing.

Although tremendous energy and resources have been focused on addressing the drug-use problem, much remains to be learned. Bonnie Benard states, "It's fair to say that educators have had more experience than success with substance abuse prevention programs" (Benard and Perrone, 1987). Not enough is known about why school-age populations use tobacco, alcohol and other drugs.

Students remain, for the most part, cynical about school drug education programs (National Commission on Drug-Free Schools, 1990). Educators don't yet know how to effect changes in areas such as parental standards and advertising policies, factors that relate to the use of tobacco, alcohol and other drugs. Too little is known about the students who drop out of school and, thus, comprise a cohort that is not included in most surveys of drug use among older students.

More attention needs to be paid to program effectiveness. Most schools now conduct some form of prevention program, but there is a need to invest more time and effort in determining what works and what does not. Such efforts would help identify how best to spend the considerable resources now directed toward the problem of drug use. Efforts should be made to understand where students get their information about drugs and how their attitudes are influenced. This information can help identify the type of school policies needed to combat drug use by school-age populations.

Much remains to be learned about these complex issues. However, ignorance is not an excuse for inaction. To the credit of educators and health professionals, many well-intentioned attempts to address drug-use problems have been made over the years.

Prevention Efforts

School-based drug-use prevention dates back to the 1800s when the Women's Christian Temperance Union successfully lobbied every state of the United States to implement educational programs on the dangers of alcohol. Since that time, numerous efforts have been made to persuade children to stay away from drugs, to scare them about drugs, and even to give them simplistic answers to the problems associated with drugs.

In the 1990s, a variety of drug-use prevention programs exist. Some have a national focus, while others have a highly localized focus; some focus on a single drug, others on all drug-use behavior; some are very personal in approach, while others are totally focused on social interaction. The specific objectives of drug-use prevention programs vary as widely as the program designs. However, several basic objectives are found in most drug-use prevention educational programs. These basic objectives serve to categorize drug education efforts to date.

Knowledge-Based Programs

Most programmatical efforts to prevent drug use have set a goal of increasing students' knowledge about drugs. Generally, this means increasing knowledge of the dangers of drug use, the effects of specific drugs on the body, drug laws and the consequences of getting caught using drugs. Some programs include some historical background on drugs and drug culture.

This "knowledge" goal is an appropriate role for schools because transfer of information is their primary business. But research on the effectiveness of programs that focus on knowledge transfer is disturbing and compelling (Tobler, 1986; Bangert-Drowns, 1988). Knowledge increase alone does not positively correlate with a reduction in drug-use behavior.

This finding is not recent. In the early 1970s, warnings were issued about programs that focus only on knowledge transfer. These warnings suggest that such programs might actually increase curiosity about and experimentation with drugs, thus prompting results opposite to those intended (National Commission on Marijuana and Drug Abuse, 1973).

Attitude-Based Programs

Some programs are considered more "affective" than knowledge-based programs. These programs focus on attitude change as a primary goal. They accomplish change through activities designed to build self-esteem, clarify personal values, encourage responsible decision making and warn of the dangers of drugs. Programs using scare tactics are an extreme example of this type of program, some of which are notable in the history of drug education. What health educator has not seen clips from the film *Reefer Madness*, in which the effects of drugs were exaggerated? The connection between attitudinal change and drug-use behavior, however, remains unclear (Tobler, 1986; Bangert-Drowns, 1988). And, in light of fervent political opposition to many aspects of this type of approach (such as values clarification), such programs have a tenuous status among accepted drug education efforts.

Skill-Based Programs

Another goal often found in drug prevention programs is enhancement of personal and interpersonal skills, particularly skills used in interaction with peers. These peer resistance skills have become the central theme of many programs, including some of the most widely used drug-use prevention programs of the nineties. Such skills help students avoid all kinds of negative situations that can lead to problems, while at the same time allowing them to maintain their self-respect and their friends. Skill-based programs are especially appropriate for adolescent students, for whom interaction with peers is crucial and often awkward.

Not surprisingly, the timing of skill-based education is critical. The middle school years appear to be the best time to provide peer-resistance training. During these years, success in resisting pressure to use drugs holds the greatest promise for life-long impact.

Alternatives-Based Programs

A final category of drug abuse prevention program aims to increase an individual's participation in positive alternatives to drug use. These programs advocate becoming involved in activities that are fun, emotionally stimulating, and involve experimentation and risk taking in a safe or controlled environment. Alternative programs stress participatory activities such as art, special health courses and outdoor education courses. Outside the formal school setting, Boys and Girls Clubs or Scouting are examples of this type of program.

Measuring Success

The continued levels of problems associated with drug use among school-age populations seem to indicate that efforts to alleviate the problems have not yet been very successful. An objective review of drug education efforts to date indicates only limited, qualified success. Lack of success may suggest that the right programs have not yet been developed. Or it may indicate that existing programs have not been rigorously evaluated. Perhaps no one has asked the questions, Which programs work? and, Why?

Almost every drug use prevention program includes an evaluation component of some sort. The purpose of the evaluation varies from program to program. Some are designed to determine if the program had an effect on the drug-use behavior of the target population; others are designed to justify the continuation of the program in an environment of competing financial interests. Attempts to compare program evaluations are fraught with problems, primarily because of design differences.

One research method, however, that does address the overall effectiveness of program types is meta-analysis research. In this method, a researcher accumulates as many studies as possible, then combines or integrates the results of those studies. The most extensive analysis of school-based drug-use prevention programs was completed in 1986 by Nancy Tobler, who studied 143 drug-use prevention programs. Her research was followed two years later by Robert Bangert-Drowns. These analyses of drug-use prevention efforts revealed a great deal about the effectiveness of drug education prevention programs. They also provided some encouraging findings concerning the types of efforts currently underway.

According to Tobler, programs that focus only on knowledge change demonstrate little effectiveness in drug-use behavior change. Likewise, programs that focus only on attitude change demonstrate little effectiveness when actual drug-use behavior is evaluated. Even in the case of programs that combined both knowledge and attitudes objectives, effectiveness was minimal.

The programs that demonstrated the most success with low-risk populations, the "average teenager," and other students who were not considered likely to experience drug problems were peer resistance programs. Labeled as refusal skills, peer resistance skills or peer pressure resistance, these programs have documented success in preventing or delaying drug experimentation.

Newcomb and Bentler (1989), however, point out that it is misleading "to bask in the success of some peer programs that have reduced the number of youngsters who experiment with drugs and ignore the tougher problems of those youngsters who are at high risk for drug abuse as well as other serious difficulties." Tobler's research indicates that alternatives programs demonstrate reason for optimism in dealing with high-risk youth, who are the ones most prone to drug-use problems.

Programs providing drug-free activities have demonstrated success in reducing drug use on the part of these populations. A logical explanation for this success is that high-risk youth rarely have opportunities to be involved in drug-free experiences. Thus, when opportunities are provided, success is easily achieved.

Taken as a whole, the findings of these two meta-analyses should not be surprising. The studies show that high-risk youth who are not being raised in a drug-free environment benefit greatly from activities that remove them from their normal environment and place them in a positive, drug-free environment. Findings also indicate that students from drug-free environments who hear, sometimes every day, about the dangers of drug use respond favorably to peer pressure training related to drug use refusal. What is more difficult to accept, though it is repeated often in the literature, is the lack of demonstrated effectiveness of knowledge-based and attitude-based programs.

What Does Work?

Some success in drug-use prevention education has been documented. Many other efforts remain unproven. Many challenges remain.

Challenge: Change the Focus of Drug Use Prevention from Drugs to Children

Students do not have drug problems; they have problems, and they use drugs. This significant distinction points to the complexity of the issue of drug-use prevention. Over the years, many have paid lip service to this challenge, but to date most programs fail to take into consideration the complexity of the drug-related problems that students face.

This failure is evidenced by the success of peer programs and alternatives programs, and the lack of success of more traditional drug education efforts. Though it may be easy to say and difficult to do, the question of focus begins with the planning stage of drug-use prevention efforts.

Planning involves all constituents of a community in the policy and practice of the school. Good planning mandates the informed involvement of teachers, parents, community representatives and students. It involves writing philosophical statements that keep students in the forefront, setting goals about student needs and behaviors rather than about drugs, and measuring the accomplishments of students, not those of teachers, administrators or law enforcement officers. Most important, planning involves the development of a unified vision of a drug-free educational institution devoted to students.

Dwight D. Eisenhower once said, "The plan is nothing, planning is everything." This wisdom is basic to shifting concerns away from drugs and toward children. The final published plan is not as important as is the strength gained from the involvement, goodwill, and program ownership felt by a local community, a professional team and the students themselves. By focusing the planning efforts of drug-use prevention on children—their special needs, their special problems and their special circumstances—school administrators, teachers and public health officials can change the entire nature of drug-use prevention efforts.

Challenge: Ensure a Drug-Free School Environment

Perhaps the most difficult challenge facing school and administrative personnel is to provide a drug-free environment that reinforces the value of drug avoidance through positive role models and consistent organizational decision making. While the need for this environment may seem obvious, not all schools have policies and practices that ensure a drug-free learning environment.

In many schools, tobacco is freely used by teachers, administrators and the adult public. However, enough is known about the dangers of tobacco smoke, both to the smoker and to those who inhale secondhand smoke, to suggest the restriction of the use of tobacco products on all school property and at all school functions. Such a restriction can also be justified on the basis that tobacco is considered a "gateway" drug. Schools that provide drug-use space (smoking lounges) and drug paraphernalia (ashtrays) paid for with tax dollars might be considered to promote the use of this drug.

In addition, when the National Commission on Drug-Free Schools submitted its final report, one of its major findings was that students in every school the commission visited confirmed what many had feared—that all drugs, from alcohol to crack cocaine, are readily available to anyone who wants them. Actual sales may take place off school grounds, but the campus provides an avenue of marketing, communication and access to the drug market.

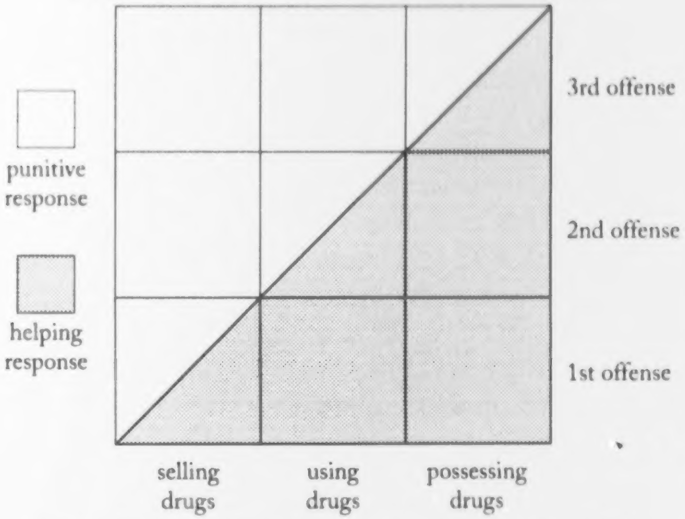
Providing a drug-free environment means more than lining the halls with police to deter the illicit drug trade. It means instituting policies and practices that acknowledge the negative impact of all drugs, including tobacco and alcohol, on the learning environment. The most appropriate drug policy for schools is quite simple: a total ban on the use of tobacco, alcohol and other drugs on school property.

School policy can firmly restrict any drug trade on campus. And it can enforce these restrictions by cooperating with law enforcement agencies to prosecute offenders fully. Weak school policies, or policies that remain unenforced, enable young people to begin and continue down the path of drug use.

An example of a firm discipline management plan designed to address drug offenders on campus was developed by a regional educational service center in a mostly rural area of Texas. (See Figure 1.) The plan is firm but compassionate. It emphasizes

Figure 1

Decision Matrix for Drug Policy Violations


punitive response
helping response
3rd offense
2nd offense
1st offense
selling drugs
using drugs
possessing drugs

Source: Greg Heuberger, Drug Education Specialist, Region VI Education Service Center, Huntsville, Texas.

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helping and punitive responses to violations. By simplifying policy, the students, parents, administrators and teachers all are well aware of the results of drug possession, use or trade on campus.

Challenge: Provide Both Categorical and Integrated Drug Education as a Part of Comprehensive School Health Programs

Even though effectiveness data on programs that focus on knowledge about drugs and the dangers of drug use are discouraging, it essentially remains the role of the school to provide information that students can use as the basis for quality decision making. Deliberate education about drugs through health education remains important. Curricula for drug education must go beyond knowledge exchange, however, to include the promotion of healthy attitudes and social skills. The program should be a part of comprehensive school health, as well as being an integrated element of other subjects.

Repeated exposure to the "no-use" message in English, social studies and even math classes, as well as in health class, only serves to underscore the importance of that message. This integration may mean the continued development of localized curricula designed to meet the needs of a particular student population. It may also mean using, with attention to implementation fidelity, existing programs that have proven effective.

The state of Texas has developed a model for integrating drug education messages with other subjects. The publication, *Education for Self-Responsibility II: Prevention of Drug Use* (Texas Education Agency 1992), provides lessons for teachers of most subjects that can be integrated into existing nonhealth curricula. For example, in math class, students might calculate the cost of smoking cigarettes for a week, a month and a year. In music class, students might analyze the impact of drug use on performance and life expectancy. In vocational education, students might identify the skills needed in the workplace and speculate on the impact alcohol would have on those skills. The Texas model has now been adopted by the state of Oregon, is supported by the U.S. Department of Education, and has been extremely well received by the teachers of Texas.

Even programs using scare tactics may have a place in drug prevention education efforts. Experts in health communication are reevaluating such programs and are finding that scare tactics actually do have an effect on behavior if, and only if, they are accompanied by efficacious means of addressing the threat.

In other words, if a child is given frightening information on the deadly effects of alcohol along with skills on how to avoid an alcohol overdose, the scare may be effective in reducing alcohol consumption. On the other hand, if a child is given frightening information about alcohol without information on avoiding the dangers, the child may deal with the fear by denying its existence.

This denial may be an underlying reason for many adolescents' false belief that "it could never happen to me." These findings present a challenge to health educators who have for years rejected any form of scare tactics when dealing with drug use. Perhaps the time has come to reconsider the value of such tactics (Witte, 1992).

Challenge: Target the Middle School Years

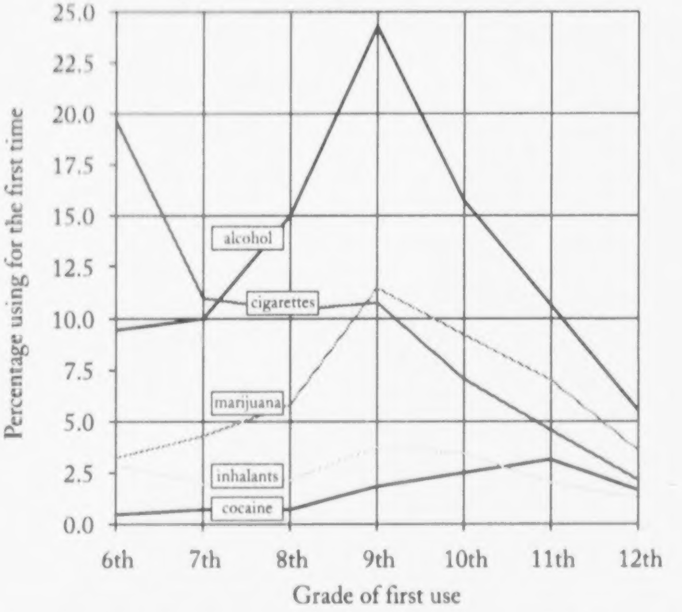
Educators have just begun to understand how important the middle school years are in determining the quality of life of young people. The Carnegie Foundation's 1989 publication *Turning Points* prompted considerable excitement on the part of educators nationwide. That excitement arose from a growing confidence that an informed leadership in education and health could not continue to ignore the special needs of middle school youth.

The document was named *Turning Points* because many educators believe the middle school years represent a "turning point" toward either a diminished future or a productive life. Studies on the initiation of drug use bear out this thesis; many students begin using drugs during this period. (See Figure 2.)

Turning Points concluded, among other things, that "a volatile mismatch exists between the organization and curriculum of middle-grade schools and the intellectual, emotional, and interpersonal needs of young adolescents." As might be expected, this

Figure 2

Grade of First Use of Drugs in Percentages as Reported by High School Seniors



Source: National Commission on Drug-Free Schools. 1990. *Toward a Drug-free Generation: A Nation's Responsibility.* Washington, D.C.

publication and several companion publications gave particular emphasis to the need for drug-use prevention efforts targeted at this age group.

Several other reports and publications from highly respected professional and governmental organizations also call for change in our response to the health needs of middle school youth. *Code Blue* (National Commission on the Role of the School and the Community in Improving Adolescent Health, 1990), *The Health/Education Connection* (American Association of Colleges for Teacher Education et al., 1991), and *Healthy People 2000: National Health Promotion and Disease Prevention Objectives* (U.S. Department of Health and Human Services, 1991) represent collaborative efforts by health and education professionals to study and recommend future directions for serving the needs of our youth.

In sum, these publications detail a crisis situation for today's middle school child and suggest that we have little choice but to reform education. The momentum for middle school educational reform is great. The challenge is to keep the health of the child, and particularly drug-use prevention goals, in the forefront as these reforms come about.

Challenge: Provide Alternatives to Drug Abuse

A challenge to communities as a whole is to provide drug-free alternatives to youth who are most at risk for drug abuse. As school budgets shrink and as teachers and administrators come under increasing pressure to improve student scores on standardized examinations, it may be easy to cut programs that are considered extracurricular or are specially designed to target high-risk students.

But research suggests that instead of cutting extra programs, the number and type of drug-free extracurricular activities available to young people should be increased. Some of the greatest documented successes in drug prevention education have provided opportunities for academic achievement and extracurricular involvement as alternatives to drug abuse. This challenge presents an opportunity to involve community organizations, local health departments, churches, civic groups, and ad hoc organizations in the effort to prevent drug use.

Challenge: Honestly Examine Effectiveness

One of the most interesting findings of the Bangert-Drowns (1988) meta-analysis was not what was included in the study, but what was missing. In an analysis of drug prevention programs that spanned more than fifteen years, Bangert-Drowns found that fewer than twenty programs qualified for inclusion, because so few programs had collected precise effectiveness data. During that period, hundreds, perhaps thousands, of programs were in use, many sponsored with tax dollars, but very few apparently stopped to consider whether they were accomplishing anything.

Health education researchers must ask, Do these programs work? Current findings raise more questions concerning the effectiveness of drug-use prevention efforts. Some of these efforts are known to be basically ineffective in changing drug-use behavior, but they continue to be promoted because they are appropriate school activities or because they are endorsed by a strong political faction within a community. Some are thought to be effective if presented appropriately, but upon close examination are often found to have been presented inappropriately. Some are known to be effective with low-risk students, yet are used extensively with high-risk populations. Some are known to be effective with high-risk youth, but are not available due to high program cost.

Some drug-use prevention efforts tend to reinforce the protective factors that are already in place; those based on the simplistic concept "just say no" may reinforce what many children are hearing at home. For high-risk children, however, who are hearing and seeing just the opposite at home, such programs may be laughable. Obviously, the evaluation of drug-use prevention programs is complex. It does not lend itself to simple methods, any more than the problems related to drug use lend themselves to simple answers.

An examination of program effectiveness is of no use unless sustained efforts are evaluated. Long-term vision is needed to address the drug-related problems of the nation's schools. The patchwork, emergency-like programming that has characterized drug education and prevention over the years is not enough.

There is a need to collect data, implement programs and collect more data over a period of years. Then programs can be revised to make them more effective, instead of relying on the "purchase and discard" approach that currently typifies drug education.

Nothing can be gained by ignoring research on program effectiveness. Likewise, nothing can be gained by saying drug education simply cannot be evaluated. Assessing the effectiveness of drug education programs will not be easy, but it is a challenge that health education must face. Educators must accept the challenge and work to find new ideas and new programs along the way.

Challenge: Have Realistic Expectations

Everyone has an opinion about drug education, and quite often that opinion includes the idea that schools should do more to prevent children from using drugs. But is it realistic to place the burden of drug-use prevention entirely on schools? All too often, public opinion, the opinion of program planners, public health officials, and even drug educators reflects unrealistic expectations of drug education.

School-based substance-use prevention programs, including drug education curricula, should be examined in a societal context. Drug problems are not unique to the young. Adults, including parents, are clearly a part of the environment that supports drug use. Schools cannot control the behavior of parents.

Consequently, both educators and the public need to recognize that drug prevention programs in the schools are not a panacea for society's drug problems. While we can aspire to "drug-free" schools, we cannot continue to expect that school-based drug-use prevention programs will change society as a whole.

Looking Forward

Educators are beginning to understand both how drug-use prevention efforts have failed and how they have succeeded. It would be wrong to abandon programs simply because ill-conceived evaluation strategies suggest their ineffectiveness. Likewise, it would be wrong to deter creative energies directed only toward demonstrated success.

Successes in this area have not been so great that anyone can claim to have found the answer. However, the failures have not been so dramatic as to suggest giving up on traditional drug prevention programs. The challenge remaining for health and education professionals is immense. As we continue our endeavors in this relatively uncharted field of drug-use prevention education, perhaps our best strategy is a simple one: Keep going.

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Chapter 15

Nutrition Issues

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An overriding issue in child nutrition is the lack of acceptance of two concepts—first, that eating behavior influences health, and, second, that eating behavior in childhood initiates adolescent and adult eating patterns. Many parents and other adults are responsible for food services to children. They must understand and acknowledge the benefits of good nutrition, which include prevention of cancer, heart disease, obesity and osteoporosis, for the long-term health of a child. Adults must integrate facts and recommendations about nutrition into their meal planning and nutrition education programs.

The major child nutrition responsibility of schools is two-fold: first, to protect the health and well-being of students with wholesome foods, and, second, to provide an enjoyable environment that makes healthful foods accessible to all children. Coordinating classroom learning with cafeteria decision making and supporting inservice training for child nutrition employees and teachers are of paramount importance.

The following groups are key national players in child nutrition at schools:

- the U.S. Department of Agriculture (USDA) and its Nutrition Education and Training Program (NETP), National School Lunch Program (NSLP), School Breakfast Program (SBP) and commodity programs
- the American School Food Service Association (ASFSA)
- the School Nutrition Services Dietetic Practice Group of the American Dietetic Association (ADA)
- state child nutrition directors
- food manufacturers

These groups are responsible for informing legislators of the needs and priorities for effective and efficient child nutrition programs across the United States. As child nutrition is integrated into comprehensive school health, the Centers for Disease Control and Prevention and other national survey and professional organizations become more and more important.

The complications and real challenges for child nutrition programs include:

- integrating national nutrition directives into programs
- developing and structuring programs for success
- targeting modifiable variables

Direct services must be incorporated for children at high nutritional risk, from the hungry to the obese. These services must address the needs of children in all ethnic groups and in all age groups from lower elementary through high school. Evaluations must be planned into all programs and reported in a timely fashion.

Key Terms and Acronyms

ADA — American Dietetic Association
ASFSA — American School Food Service Association
NETP — Nutrition Education and Training Program
NSLP — National School Lunch Program
SBP — School Breakfast Program
USDA — U.S. Department of Agriculture
RDAs — Recommended Dietary Allowances
cancer
cholesterol
iron deficiency anemia
obesity
primary prevention
the Food Guide Pyramid
reimbursable meal pattern

Schools' Responsibility for Sound Nutrition

In 1946, Public Law 79-396 created the National School Lunch Act for the purpose of protecting the health and well-being of the nation's children. The act directs local school districts to serve lunches without cost or at a reduced cost to any child who is unable to pay the full cost. Schools use surplus commodities when possible in meal planning and do not discriminate against any child who is unable to pay a full price.

The Child Nutrition Act of 1966 (Public Law 89-642) authorized the School Breakfast Program as a pilot program. The program was extended to all schools using grants-in-aid in 1975. During the 1970s, legislation improved the quality of meals, emphasized nutrition education and enlarged coverage of programming. The Omnibus Budget Reconciliation Act of 1981 (Public Law 97-35) targeted benefits based on need and improved program management and accountability at the local schoolsite level.

The Food and Nutrition Service (FNS) of the USDA implements programs legislated by Congress. It establishes regulations, policies and guidelines about school foods and monitors program performance. In addition, the service provides program and administrative funds to states via seven regional offices. States generally assign the responsibility for program administration to the state educational agency, e.g., the state department of education, which assists local school districts by establishing fiscal recordkeeping systems and monitoring performance. The individual school is responsible for the actual preparation of nutritious meals and serving those meals to children.

The Reimbursable Meal Pattern

The National School Lunch Program has nutritional requirements for lunches served to children. Generally, lunches provide one-third of a child's age-specific RDAs. RDAs are set for energy, protein, ten vitamins and seven minerals. Minimum requirements are set for sodium, chloride and potassium. RDAs are the quantitative standards for planning nutritionally adequate breakfast and lunch menus, but other government directives, such as the *Surgeon General's Report on Nutrition and Health* (U.S. Department of Health and Human Services, 1988) and *Nutrition and Your Health: Dietary Guidelines for Americans* (U.S. Department of Agriculture and U.S. Department of Health and Human Services, 1988), provide the qualitative canvas for planning meals for children.

Recent federal directives identify the *Dietary Guidelines for Americans* as the basis for all child nutrition program menu-planning activities. The *Menu Planning Guide for School Food Service* and the new publication *Nutrition Guidance for the Child Nutrition Programs* identify the guidelines as the basis for the *quality* of the menu and recommend, "Keep fat, sugar, and salt in school lunches and breakfasts at a moderate level."

USDA program guidelines define a four-component meal pattern that must be offered to children in the minimum amounts for their age. The components are meat or meat alternate, vegetables and fruits, whole-grain or enriched bread or bread alternate, and fluid milk. This regulation must be met at all meals, and is the basis of partial reimbursement to the school.

Schools can add foods to the required servings at their own discretion. An "offer vs. serve" parameter is now extended to all elementary, junior and senior high students (Public Law 97-35). Under this parameter, schools must offer five items but students can select three. New FNS regulations allow students to request smaller portions of food items than the amount defined in the five-item pattern. Previously, this request was not allowed.

The School Breakfast Program (SBP) regulations do not define specific nutrient goals, but planning is guided by the RDAs. The accepted nutrient content for breakfast is one-fifth to one-fourth of the student's RDAs. Menu planners choose portions of the meal components—meat or meat alternate, fruit, whole-grain or enriched bread or bread alternate, and fluid milk—to meet nutrient requirements.

Nutrition education has been a mission of school food service since the 1940s, when a total school program was defined as one in which students learned the relationship between food, nutrition and health. Public Law 91-248, enacted in 1970, was the first federal legislation to specify nutrition education provisions that authorized training school food service workers in nutrition. Public Law 95-166 established the Nutrition Education and Training Program (NETP) in 1977. This program gave new impetus not only to teaching children the value of a nutritionally balanced diet through positive daily lunchroom experience and classroom reinforcement, but also to training teachers and school food service personnel to implement programs. The NETP funding is decentralized; state departments of education direct the awarding and evaluation of programs. (See Chapter 10 for more discussion of school food services.)

The School Eating Environment

Students may have 12 to 25 minutes for lunch. In this time, they must obtain their meal, find a place to sit, eat, socialize and discard waste. This rushed environment decreases chances for optimal food intake.

Meal monitors are employed in some schools as "traffic" and "time keepers." If their efforts are positive and not demeaning for students, a receptive environment occurs. Some schools even present lunch as a pleasant social time with music and citizenship awards for clean-up and manners.

Student meal acceptance has usually been based on plate waste. To lower plate waste, menu planners have developed potato, salad and sandwich bars as enticements to participate. Youth advisory groups have been devised by the ASFSA to bring students into the planning, tasting and decision-making process (American School Food Service Association, 1990).

The multicultural environments of many schools today require school foods that are diverse in taste and enhance the cultural pride of the students. To increase acceptability, cultural foods should be incorporated into school menus. However, with Westernization, many of the benefits of nutritious foods from different cultures have been lost. For example, tofu may be deleted from Asian dishes, and high fiber ingredients may be left out of salads and vegetables of the Middle East. Individual student tastes and cultural practices have been shaped by societal norms and food preparation practices.

Children are receptive to change. To see the association between children's reported acceptance of foods and the frequency with which they ate them, a study identified the top five school lunch entrees for fifth and sixth grade students in the ABC Unified School District in Los Angeles County (Hong et al., 1992). The 172 students were 30 percent Hispanic, 30 percent Asian, 30 percent White and 10 percent Portuguese, East Indian and other. A significant Pearson correlation coefficient was noted between both the acceptance and the frequency of eating certain routine entrees and a new recipe for a lowfat Chinese meat bun that substituted tofu for beef. As the data in Figure 1 indicate, the new recipe was as acceptable as the routine entrees. When given culturally diverse foods, culturally diverse children select and eat them, as noted by the high "r" values, or correlations, and the high "p" values.

Several education/demonstration studies have successfully reduced the fat and saturated fat content of school recipes. The "Go for Health" program focused on influencing the student environment by enhancing physical activity classes and by lowering the fat and sodium content of school lunches. In select schools, total fat was lowered by 16 percent, saturated fat by 32 percent and sodium

Figure 1

Association Between Acceptance and Frequency of Eating Pearson Correlation Coefficient

Entree	r Value
nacho beef and cheese	0.739
pepperoni pizza	0.753
spaghetti	0.739
chicken chunks	0.717
diced turkey	0.786
Chinese meat bun	0.850

(All $p < 0.001$)

by 54 percent. Dietary recalls of students indicated that they consumed fewer calories, total fat and sodium than students not offered the modified menus (Simons-Morton, 1991).

The "Heart Smart" program developed a complementary approach for cardiovascular health promotion. The school cafeteria and classroom were effective vehicles to translate reduced fat, sodium and sugar content of menus into acceptable foods (Frank et al., 1989a).

Food Service and Classroom Education

In a survey of 407 fourth- to eighth-grade students, 94 percent thought that the food they eat can affect their future health. Ninety-nine percent understood the importance of exercise for good health, 80 percent could identify three of the four food groups then being taught, and 98 percent recognized the importance of eating plenty of fruits, vegetables and high-fiber foods (National Center for Nutrition and Dietetics and International Food Information Counicl, 1991c).

Simply knowing about fruits, vegetables and fiber isn't enough to make individuals eat more of these foods, however. Since students report that their primary sources of nutrition information are schools (95 percent), parents (86 percent) and health professions (73 percent), schools need to be actively involved in nutrition education (National Center for Nutrition and Dietetics and International Food Information Counicl, 1991d). Surveys support nutrition education as an acceptable method for reducing population risk factors for chronic disease. Such education provides a less expensive approach to improving nutrition than medical and clinical strategies (Levy, Iverson and Walberg, 1980). In a 1989 survey, 76 percent of the grocery shoppers surveyed stated that nutrition is a very important factor when they choose food. Fat, salt and cholesterol content were their major concerns (Food Marketing Institute, 1989). High interest in nutrition emphasizes the relevance of nutrition education for children about healthy food selections.

The "Food for Thought, All About Nutrition and You!" program in a Palm Beach school district revealed that 10 percent of children were either underweight or overweight. Age-appropriate nutrition education activities were placed in the curriculum, and students prepared healthy snacks in the classroom. An increased acceptance of vegetables, skim milk and other foods that had been used during class were noted by the child nutrition employees in the cafeteria. The majority of teachers, principals and students wanted to continue the program the following year, and test packets were distributed to other district schools (Dubinsky and Bodner, 1991).

The earlier we integrate nutrition education into the classroom, the more likely students will practice healthy eating behaviors. The "FUN KIT" developed in the Portland Public Schools packages nutrition education for preschoolers with puppets, music cassettes and stickers. The aim of the FUN KIT is to coordinate classroom nutrition education, healthful school meals and family participation (Portland Public Schools, 1989).

Training Food Service Personnel and Classroom Teachers

The ability of school cafeterias to link with classroom education is often determined by the skill of the child nutrition employees and the food service delivery system. A centralized service provides preparation of all food in a central kitchen, often using a "cook-chill" process. Food is transported daily to specific school sites, where it is refrigerated and then heated prior to serving. This system provides a unique opportunity to train a kitchen staff and influence thousands of meals daily prior to distribution. Major concerns are that the foods are often purchased pre-portioned and the cooking equipment is automated in an assembly line. Menu changes must fit into the equipment and production process and the food specifications required of food companies.

In decentralized service, all food is prepared on each school campus under the supervision of a site manager. This type of program creates a sense of ownership by the staff. Training at the site involves identification of the readiness of each employee. Employees may be responsible for only single types of foods, e.g., the baker, the main entree cook. For this type of service, training is directed toward skill development of the different preparation positions.

For either delivery system, point-of-choice nutrition information can be placed adjacent to foods to complement classroom education. For example, a label could read, "Tossed Salad with Flaked Tuna, 1 and 1/2 cup, 144 calories, 241 RE vitamin A, 36 mg vitamin C," or "Hamburger on Whole Wheat Bun: 266 calories, 41% fat, 362 mg sodium." This type of information has been used to guide individuals in making healthy food choices with comparisons and nutrient information (Cinciripini, 1984; Schmitz and Fielding, 1990; Davis-Chervin, Rogers and Clark, 1984; Anderson and Haas, 1990). Color-coding, such as a stop light, has been effective with children (Simons-Morton et al., 1991).

Since school menus are increasingly being evaluated by a nutrient standard, computerized databases are now being used by employees. Increasing the technical skills of child nutrition employees can be accomplished by integrating the computer training into routine procedures. Many programs are available, such as Computrition, Inc., DINE Systems or NutriKids (Computrition, 1992; Dennison, Dennison and Frank, 1992; LunchByte, 1993; Frank, 1985). Each system has unique characteristics, ranging from extensive food production, purchasing and inventory programs on Computrition to evaluation by USDA meal components on NutriKids.

NutriKids is a food database designed specifically for child nutrition programs. It contains more than 3,400 common ingredients and 240 USDA recipes. The DINE System has more than 4,000 foods. It produces a printout with an overall menu score based on consensus dietary recommendations, e.g., less than 30 percent fat and less than 3,300 mg of sodium (Dennison, Dennison and Frank, 1993; Frank, 1985).

Community Partnerships

Developing partnerships with the community is a growing trend for child nutrition directors. A community advisory group of eight to twelve members can consist of a community leader; a local pediatrician; a grocery store owner; a restaurant owne; an American Cancer Society or American Heart Association representative; an elementary school teacher; a newspaper; radio or TV reporter; a clergyperson; a health agency representative; a local nutritionist; and/or a popular personality. The advisory group can respond to the program philosophy, needs, progress and any changes in format. This group can reinforce and publicize positive efforts in child nutrition programs.

Conversely, child nutrition directors and the nutrition education specialists they employ can serve as nutrition resources for the media and community health efforts. For example, Connie Evers, MS, RD, is a specialist with the Portland Public Schools who periodically writes a column focusing on child nutrition for the *Portland Oregonian*. Unfortunately, only 8 percent of child nutrition directors employ such a specialist, often due to lack of funds (Frank and Desai, 1992).

National Directions

The USDA and its regional offices provide the major direction and impetus for school food programs. The nutritional well-being of children is influenced by USDA's acceptance and integration of national nutrition directives into its own programs. USDA oversees the commodity program that provides surplus foods to schools annually. The trend has been to provide healthier commodities to schools that need the price break that commodities offer. For example, in 1970, American cheese, ground beef with fat not to exceed 30 percent, fruit packed in heavy syrup, and hydrogenated vegetable fat were common commodities. These items have been replaced with mozzarella cheese, ground beef with fat not to exceed 22 percent and soybean salad oil. Today, ground turkey, extra-lean frozen beef patties and diced chicken appear on the commodity list, along with processed cheese with reduced sodium, sliced peaches in light syrup, and almond butter. Changes are still needed, but improvements in commodities are evident.

The ASFSA and its state chapters support a 65,000 national membership. The association is the mouthpiece for child nutrition professionals, with active lobbying efforts in Congress. In 1992 and 1993, efforts were directed toward universal feeding and increasing participation in NSLP, breakfast and summer feeding programs.

The ADA and the School Food Services Dietetic Practice Group are major professional organizations of registered dietitians employed in school systems. In addition, many food companies employ registered dietitians who manage complete health care lines and specialty lines for schools, e.g., S. E. Rycoff, Arrow-Sysco and ConAgra. Child nutrition directors and managers work directly with the food companies to achieve lower fat, sodium and sugar products for their menus.

Many nonprofit organizations have programs available to schools. The American Heart Association and the American Cancer Association have each developed excellent nutrition education materials, such as *Changing the Course, Early Start* and *Heart Works*. Working collaboratively with these organizations and professional volunteers can be advantageous to schools with budget restrictions. Continuing education hours can be accrued for teachers and child nutrition employees. Additionally, complete up-to-date and effective curricula from these organizations can link classroom education with the cafeteria and tap parents and community resources.

The Association of State School Nutrition Directors and Supervisors meets annually to update programs on USDA guidelines and pending national legislation affecting school meals, to discuss innovations, and to provide continuing education. These directors oversee all USDA food programs in schools and daycare facilities in their respective states.

Major Nutrition Initiatives

Several objectives in *Healthy People 2000* (U.S. Department of Health and Human Services, 1990) set the nutrition agenda for schools. (See Figure 2.) The Pediatric Panel Report of the National Cholesterol Education Program (NCEP) underscores these objectives for children two years and older by recommending maintenance of a healthy body weight and an eating pattern with less than 30 percent of total energy as fat, 10 percent as saturated fat, and less than 300 mg of cholesterol per day (NCEP, 1991). This pattern requires a high complex-carbohydrate intake, not only to reach the lower fat composition, but also to achieve adequate calories for growth and development of children.

A fiber recommendation for children is needed, yet is only speculative at this time. Fiber intake of ten-year-old children in the Bogalusa Heart Study from 1973 to 1982 averaged 4 to 5 g. A 25/25 standard has been suggested, i.e., 25 percent of the total energy intake for children as fat and 25 grams of fiber per day (Wynder, Weisburger and Ng, 1992). An increase in complex

Figure 2

Healthy People 2000 Objectives Relevant for Child Nutrition in Schools

2.10 To reduce iron deficiency to less than 3% among children ages 1 through 4 and among women of childbearing age.

2.17 To increase to 90% the proportion of school lunch and breakfast service and child care food services with menus that are consistent with the *Dietary Guidelines for Americans.*

2.19 To increase to at least 75% the proportion of the Nation's schools that provide nutrition education from preschool through 12th grade, preferably as part of quality school health education.

2.3 To reduce overweight to a prevalence of no more than 15% among adolescents ages 12 through 19.

2.5 To reduce dietary fat intake to an average of 30% of calories or less and average saturated fat intake to less than 10% of calories among people age 2 and older.

2.6 To increase complex carbohydrate and fiber-containing foods in the diets of adults to 5 or more daily servings for vegetables (including legumes) and fruits, and to 6 or more daily servings for grain products.

2.7 To increase to at least 50% the proportion of overweight people age 12 and older who have adopted sound dietary practices combined with regular physical activity to attain an appropriate body weight.

2.8 To increase calcium intake so at least 50% of youth ages 12 through 24 and 50% of pregnant and lactating women consume 3 or more servings daily of foods rich in calcium, and at least 50% of people age 25 and older consume 2 or more servings daily.

Source: U.S. Department of Health and Human Services, Public Health Service. *Healthy People 2000.* DHHS Publication No. 91-50212. Washington, DC.

carbohydrate to achieve a 30 percent or lower fat-eating pattern naturally creates a high fiber eating pattern.

The USDA *Pyramid Guide to Eating* (1992) is the visual presentation of the dietary guidelines. Fats, oils and sweets are at the tip of the pyramid, followed by lowfat meat and dairy products. Whole grain starches, breads and cereals, fruits and vegetables form the bottom segments signifying more servings for a healthier food pattern. The Pyramid Guide conveys three important concepts:

1. Balance foods higher in nutrients with those lower in nutrients.
2. Choose a variety of foods each day.
3. Eat moderate portions of foods.

The Pyramid Guide was preceded in 1989 by California's Assembly Bill 2109. This bill mandated the California Department of Education to develop nutrition guidelines for all food and beverages sold on school campuses in California. The *Nutrition Guidelines for California School Foods* (California Department of Education, 1991) presented a three-tiered approach to dietary modification of lunch and breakfast menus. Each level reduces fat content and increases fiber content through an increase in whole-grain foods, fruits and vegetables. (See Figure 3.)

Tier 1 has the least change. At this level, modification occurs primarily in the quality of the food that children receive—for example, fresh fruit rather than canned or whole-grain bread rather than plain white bread. *Tier 2* decreases the quantities of certain foods and replaces them with increased quantities of others to maintain the calories children need for energy and growth. For example, less butter is used on vegetables, and gravies and rich desserts, which add calories primarily in the form of fat, are served less frequently. Lower-fat forms of meat, cheese, milk and desserts are used. Calories are increased by adding servings of bread and bread alternates and fruits and vegetables.

Figure 3

Three-Tiered Approach to Menu Planning in Child Nutrition Programs Following the Nutrition Guidelines for California School Foods.

Component	Tier 1		Tier 2		Tier 3	
	Grade K-3	Grade 4-12	Grade K-3	Grade 4-12	Grade K-3	Grade 4-12
Fruit or Vegetable • offer fresh produce whenever possible	1/2 cup (at least 1/4 cup fresh 3 times/ week)	3/4 cup (at least 1/4 cup fresh 3 times/ week)	3/4 cup (at least 1/4 cup fresh 5 times/ week)	1 cup (at least 1/4 cup fresh 5 times/ week)	1 cup (at least 1/4 cup fresh daily)	1-1/4 cup (at least 1/4 cup fresh daily)
Meat/Meat Alternate (M/MA)** • emphasize lean and lower sodium choices • serve beans as meat/meat alternate at least once a week	1-1/2 oz. (at least 1/4 cup beans/week = 1/2 oz. M/MA)	2 oz. (at least 1/4 cup beans/week = 1/2 oz. M/MA)	1-1/2 oz. (at least 1/2 cup beans/week)	2 oz. (at least 1/2 cup beans/week)	1-1/2 oz. (at least 1/2 cup beans/week)	1-1/2 oz.** (at least 1/2 cup beans/week)
Bread/Bread Alternate (B/BA) • emphasize whole grain products	2/day or 10/week (at least 3 servings/week are whole grain or all B/BAs contain at least 25% whole grain)	2/day or 10/week (at least 3 servings/week are whole grain or all B/BAs contain at least 25% whole grain)	2/day or 12/week (at least 5 servings/week are whole grain or all B/BAs contain at least 33% whole grain)	2/day or 12/week (at least 5 servings/week are whole grain or all B/BAs contain at least 33% whole grain)	2/day or 12/week (at least 1 serving/day is whole grain or all B/BAs contain at least 33% whole grain)	3/day or 15/week (at least 1 serving/ day is whole grain or all B/BAs contain at least 33% whole grain) (1 serving may be a "healthy" dessert)
Milk • offer lower-fat choices	8 oz.	8 oz.	8 oz.	8 oz.	8 oz.	8 oz.

* Refer to California Daily Food Guide (California Department of Health Services, 1990) for specific food suggestions.

** Requires prior approval from USDA to decrease M/MA.

Source: California Department of Education. 1991. *The Nutrition Guidelines for California School Foods.* Sacramento, CA.

Tier 3 has the greatest change. This is the last step for increasing servings of beans, fruits and vegetables. All high-fat desserts are replaced with fresh fruits; whole-grain breads are served; and minimal fat is added in cooking. Reaching this tier achieves the nutrition guidelines for child nutrition programs. Nutrient content at this level reflects 30 to 35 percent of the total calories as fat and one-third of the RDAs for vitamins and minerals with moderation of sodium and sugar.

The eating pattern identified in California's nutrition guidelines is based on the *California Daily Food Guide* (California Department of Health Services, 1990), currently used by California for all nutrition programs. The guide provides quantitative, lifecycle dietary recommendations with ethnic-, age- and gender-specific food guides. This guide provides continuity for programs and for the public. If the pattern is followed in childhood, transition to adolescence and adulthood is easier and probable. The California guide and the Pyramid Guide are complementary.

Challenges

Many factors provide challenges to child nutrition programs. There are a variety of ways to address these challenges.

Impact of Funding Sources. School districts receive USDA funding for meals that are served according to USDA menu standards. Milk yields an additional reimbursement. Each district should work to increase its reimbursement rate by offering nutritious meals and promoting participation by students through marketing to parents. Schools can choose whether to participate in the School Breakfast Program; however, with hungry and high-risk children slipping through the cracks, schools should ensure that their policies allow all children access to the SBP, the NSLP and the Summer Food Service Program.

Healthy E.D.G.E. The ASFSA offers an initiative called *Healthy E.D.G.E.: Eating, the Dietary Guidelines and Education.* This initiative focuses first on team building in schools and communities to help incorporate the *Dietary Guidelines for Americans* as part of the school policy. It also emphasizes activities that will effectively improve the nutritional health of students (ASFSA, 1991). It is the impetus for child nutrition employees to practice healthy menu planning for school children.

Child Nutrition as a Component of Comprehensive School Health. Comprehensive school health is based on a planned, sequential pre-kindergarten through twelfth grade curriculum that addresses the physical, mental, emotional and social dimensions of the child (Allensworth and Kolbe, 1987). Child nutrition and food service is one of the eight major comprehensive school health components. School cafeterias and campus food sales are a primary prevention arena—a learning laboratory for children, where demonstration and education studies can be conducted to evaluate menu changes and student acceptability (Frank, Vaden and Martin, 1987). With national efforts to legislate comprehensive school health in our schools, support for this initiative strengthens each component, e.g., child nutrition, physical education, and its respective programs.

Professional Development. The ASFSA has a strong commitment to continuing education addressing sanitation, safety, meal planning and health promotion in schools. School districts should support the food service staff and share expenses in training and upgrading this aspect of the school environment. Often child nutrition employees are at the low end of pay scales; their work may be seen as tertiary to education and physical fitness. Such an attitude is demeaning and unnecessary. No hungry or malnourished child can think, concentrate and participate at his or her fullest potential, and well-trained child nutrition employees provide the programs that protect children against hunger and malnutrition.

A statewide census of training needs queried 547 directors and 1,266 managers in California (Frank et al., 1992). "Training programs" was reported as the number one influence on career development. "Food preparation" and "healthy menu planning" were the two future courses respondents felt would be "most helpful" in their daily work. On-the-job training was the most common form of training, and respondents preferred either their school site or their district office for training.

To train child nutrition employees in healthy menu planning, *Shaping Healthy Meals for School Children* was developed as a ten-lesson curriculum to be taught in the train-the-trainer format (Frank and Desai, 1992). This curriculum uses the California Daily Food Guide and has been approved for continued education units by the California School Food Service Association. The curriculum integrates several worksheets from the American Cancer Society's cafeteria training manual, *Changing the Course.* It is only one of several excellent "hands-on" curricula available to schools.

Cafeteria intervention in the form of inservice training can follow a population approach and be given to all participating schools in a district or to multiple districts in a county. Training in school districts must be formalized in a consistent, sequential manner, such as monthly or bimonthly, even though it is seldom done. A train-the-trainer format strengthens the likelihood that the school district will sustain the program. This format identifies employees to be trained who then become trainers for their peers.

Applying National Directives

An action plan to adapt child nutrition programs to achieve *Healthy People 2000* objectives should be dominated by the RDAs, the Pyramid Guide and the NCEP recommendations. These directives, if achieved, could reduce eating disorders, promote healthy weight management, reduce nutrient imbalance, enhance nutrition education in the classroom, and ensure that healthy and acceptable meal planning occurs in schools.

The PRECEDE model for school health intervention (Green et al., 1980) can serve as a blueprint for developing an action plan. It addresses predisposing, enabling and reinforcing factors in schools. Predisposing factors are the demographic and population norms, which are often beyond the scope of a program and are not modifiable. Increasing fruit and vegetable intake in the population would establish a new preferred norm. Enabling factors include availability and accessibility in the school, such as the cafeteria, vending machines and campus stores. Reinforcing factors include attitudes and behaviors of peers, teachers, administrators and media that either support or discourage behavioral change. Child nutrition program directors can structure their action plans on the PRECEDE model and reduce unknowns, thereby focusing their energies and budgets on specific modifiable factors.

The nutrition plight of many children, however, must be addressed. Direct services are essential in some settings to complement meals and education at school. For example, the 1992-1993 "Healthy Start Initiative" in California will ultimately provide immediate care clinics on school grounds for high-risk populations. This approach must be mandated nationally. Nutrition should be visible and incorporated from the start as a direct service, especially when obesity, anorexia nervosa, iron deficiency anemia, lead poisoning, hunger and nutrient imbalances are prevalent.

As changes occur in child nutrition programs, actions must be monitored to identify what works and what does not work. Often child nutrition programs lack sufficient evaluation. Evaluation is crucial if major issues are to be corrected. Implementation and process evaluation can include questionnaire and observational measures to assess the program operation. Outcome evaluation can include questionnaires and observational methods to assess program effects on food consumption and nutrient outcome.

A "Meal Quality Assessment Instrument" developed by the California Department of Education requires fifteen to twenty minutes of direct observation and marking on a Scantron form by an observer (Frank, 1992). It tracks qualitative changes in menus. Pre- and post-tests of five to ten items can be used at each training class and summed to establish baseline knowledge of employees (Frank et al., 1989a).

A Basic Nutrition Knowledge Questionnaire with ten to twenty-five items can be developed for students to identify specific groups and knowledge of the role of foods in chronic disease prevention, food misconceptions and perceptions of nutrition messages in the media. Attitudinal questionnaires can focus on student likes and dislikes, such as fruits and vegetables or high-fat and protein foods. Scales using facial expressions are helpful when assessing attitudes of younger children. Behavior can be measured with food records or specific instruments such as the Fat Avoidance Scale or a Food Frequency chart (Frank et al., 1989b; Frank et al., 1992; Block, 1989).

Students' Nutritional Health

The nutritional health of students is a vital consideration in planning child nutrition programs. A student's health depends on the foods ingested and how the body uses them.

Growth and Development

Growth and development are monitored by two common nutritional indicators, height and weight. Many U.S. students today tend to exist at one of the extremes, either too heavy or too light for age or height. Children who exceed the recommended weight by 15 percent are considered overweight; those who exceed it by 20 percent are considered obese. Excess weight predisposes children to high blood cholesterol and sets them on a track for chronic disease (Berenson et al., 1980). At the other extreme, underweight and malnourished children present a different mosaic of nutritional problems, many of which begin during infancy and the preschool years.

The most common problems among Head-Start children in Massachusetts were overweight and short stature (13 percent each) and iron deficiency anemia (12 percent). About 20 percent of physically or developmentally disabled children had short stature, compared with 15 percent of the Asian children. Acute undernutrition was not prevalent. Overweight among Hispanic, African-American and White children was 17 percent, 13 percent and 11 percent, respectively (Wiecha et al., 1991).

The Hispanic Health and Nutrition Examination Survey (HHANES) was conducted from 1982 to 1984 and included a probability sample of civilian, noninstitutionalized Hispanics in three areas of the United States: Puerto Ricans in New York City, Mexican Americans in the Southwest and Cuban Americans in Dade County, Florida. The survey found that Hispanic children were shorter than non-Hispanic Whites, but had larger anthropometric measurements and greater weight for height than average American children. Hispanic children in all age groups were heavier than non-Hispanics, and their overweight represented increased fatness in the trunk. Twenty-three percent of the children surveyed had an abnormal weight for their age: 19 percent were overweight and 4 percent were underweight. Ten percent of the Hispanic children had abnormal hemoglobin levels, and this increased to 23 percent if borderline cases were counted. Hemoglobin is the oxygen-carrying protein of the red blood cells and the best indicator of overall nutritional status (Monsen, 1988).

Children of migrant workers may be at increased risk for receiving inadequate nutrition prior to school entrance. These children experience poor housing with limited cooking facilities. They are victims of a lack of prenatal care for their mothers, who also lack sufficient funds to provide nutritious foods for their children. Migrant children exist at a poverty level that has negative effects on their lifestyle and school potential (Good, 1990).

Key findings in a 1991 survey (Food Research and Action Center) of childhood hunger in the United States include:

- About 5.5 million children under 12 years of age are hungry.
- An additional six million children are at risk of hunger.
- Hungry children are two to three times more likely than children from non-hungry, low-income families to have suffered from individual health problems such as unwanted weight loss, fatigue, irritability, headaches and inability to concentrate in the six months prior to the survey.
- Children with a specific health problem are absent from school almost twice as many days as those not reporting specific health problems.

These data alert us to the high-risk children who enter our schools annually. Often we forget that many seemingly healthy children do not have adequate eating environments from the time they are born until they enter the school door.

Recommended Dietary Allowances

For proper growth and development, children need an array of nutrients on a daily basis. RDAs are used to evaluate how sufficient children's total daily food intakes are (National Research Council, 1989). The U.S. Department of Agriculture bases the meal planning guide for school meals on achievement of one-third of the RDAs for school lunch; breakfast is planned to achieve about one-fourth of the RDAs for healthy children (U. S. Department of Agriculture, 1983).

Children generally consume about one-fourth of the day's energy, fat and protein intakes at lunch, but one-third or more of their calcium and sodium levels (Frank, 1980). The 1987/1988 National Food Consumption Survey found that 20 percent of adolescent boys and 40 percent of adolescent girls did not drink milk on the day of the survey (Wotecki, 1992). Although consumption of the total school lunch is the goal, consuming at least the milk is essential for growing children. A study of 164 healthy White children reported that those who consumed more than 1,000 mg of calcium per day had a higher bone mineral content than children who consumed less than 1,000 mg (Chan, 1991). The higher bone mineral content is especially crucial for girls to prevent osteoporosis later in life.

In cross-sectional surveys of ten and fifteen-year-old children in Bogalusa, Louisiana, school lunch analysis reported 22 percent and 29 percent of total energy intake from fat and 20 percent and 29 percent from carbohydrate. Sugar intake represented more than one-half the total carbohydrate intake (Frank et al., 1986). Sodium averaged one-third of the recommended daily range. Parcel analyzed school lunch aliquots as yielding 39 percent of the day's total fat intake (Parcel et al., 1987). There is still room for improvement.

Eating Patterns and Behaviors

The home and leisure-time environment of children may either complement or contradict efforts at school. Parents and teachers serve as role models for children in eating behaviors as well as in other health behaviors. Teachers influence eating patterns via the knowledge they impart and the personal habits they practice.

Elementary students are more susceptible to the teacher role model, whereas peers emerge as an adolescent's major role model.

Kirk and Gillespie (1990) identified two new roles for parents and how they affect children's food choices, i.e., the "meaning creator" and the "family diplomat." Previously, mothers functioned as nutritionists, economists and "managers-organizers," but today preparation time and catering to individual preferences influence food choices as much as nutrition. Children seem to mimic the "all or nothing" attitude of their parents. Many identify foods as "good" or "bad." In fact, 73 percent of fourth to eighth graders surveyed in a national sample worried about fat and cholesterol. About 85 percent felt they should avoid all high-fat foods, while 77 percent felt they should never eat high-sugar foods (National Center for Nutrition and Dietetics and International Food Information Council, 1991c).

About one-half (54 percent) of the children eat with their families every day; 35 percent eat with the family only three to five times per week. Students who give themselves the best nutrition rating eat more frequently with their families. Skipping meals and snacks influences dietary adequacy, yet many children skip meals. In a sample of American students in fourth through eighth grades, more than half the students had skipped breakfast (57 percent). Forty-one percent had skipped lunch, and 17 percent had skipped dinner (National Center for Nutrition and Dietetics and International Food Information Council, 1991b).

Of 639 fourth- and sixth-grade students, 9 percent reported skipping breakfast within the past 24 hours, and 5 percent reported eating nothing the entire morning. The most common reason for missing meals was dislike of particular meals or snacks, lack of time or forgetting to bring food. Thirty percent of the students met the recommended number of servings from the four food groups then being taught, but 44 percent did not eat the recommended fruit and vegetable servings. Students who ate breakfast and had a morning snack were three times more likely to meet all food group recommendations (Bidgood and Cameron, 1992).

A survey of the breakfast habits and behaviors of 382 children in third and fourth grades revealed that children who ate breakfast exhibited other healthful habits such as brushing teeth and taking vitamin/mineral supplements. Students who skipped breakfast were significantly more tired and hungry when they arrived at school, yet no significant social and emotional behavior problems or concerns were noted (Lindeman and Clancy, 1990).

Resnicow (1991) studied the relationship between breakfast habits and plasma cholesterol in schoolchildren nine to nineteen years old. Only 4 percent reported not eating breakfast regularly, but these were also less likely to believe in the benefits of breakfast. Controlling for age, gender and body mass index, those who skipped breakfast had significantly higher total cholesterol levels (172 mg percent) compared with those who ate breakfast, (160 mg percent). Students who ate ready-to-eat fiber cereals had lower cholesterol levels than all other breakfast eaters. Those who skipped breakfast also reported a higher intake of high-fat snacks, while traditional breakfast eaters reported significantly lower intake of high-fiber/low-fat snacks.

Observation of a cross-sectional sample of White and Hispanic preschoolers and their parents indicates the need to educate children from varied cultural backgrounds about important dietary behaviors (Frank et al., 1991). Significantly higher scores for fat-avoiding behaviors were noted for White preschoolers (n=143) than Hispanic preschoolers (n=198).

Preliminary data from the 1987/1988 National Food Consumption Survey report indicate that children one to nineteen years old average 35 to 36 percent of their total calories from fat.

Saturated fat was 14 percent; polyunsaturated fat, 6 percent; monounsaturated fat, 13 to 14 percent; and dietary cholesterol, 193 to 296 mg. This eating pattern has predisposed children to a health-risk behavior that manifests in excess weight and high blood cholesterol levels. At least 25 percent of American children and adolescents exceed the acceptable 170 mg percent serum cholesterol level (Wotecki, 1992).

The low fruit and vegetable intake of children is common. About 90 percent of children participating in a National Heart, Lung and Blood Institute demonstration/education project called "Catch" state that they eat fresh fruit at home most of the time. About three-fourths of White and African-American children appear sure they can eat fresh fruit instead of a candy bar. However, of 407 Los Angeles Hispanic children, only 3 percent consume four servings of fruits and vegetables a day (Palmer and Johnson, 1992).

An analysis of the 1982–1983 HHANES data set composed of 3,356 Hispanic children (Murphy et al., 1990) provides further alarming data. The children surveyed consumed fruits and vegetables less often than the other food groups. Data indicated these children instead chose their calories from the meat, dairy and breads/cereals groups.

These data are alarming because students are responsible for making most of their own food selections by the time they reach the fourth grade. Sixty-five percent choose their own breakfast, 46 percent their lunch, and 74 percent their snacks; although 73 percent report their mothers choose the dinner. Most students (87 percent) are responsible for cooking or preparing some of their own meals. Eighty percent make their own breakfast, and 57 percent are involved in buying food for meals or snacks (National Center for Nutrition and Dietetics and International Food Information Council, 1991b).

Avoidance of certain foods due to intolerances or hypersensitivities may not be well founded. Although many individuals think they have a food allergy, true food allergies affect only 0.3 to 7.5 percent of children and less than 1 percent of adults (Sampson, Buckley and Matcalf, 1987). Food intolerance, which involves an abnormal physiologic response to a food, is more common. Hyperactivity is a different condition, distinguished by signs of developmentally inappropriate inattention occurring in 5 to 10 percent of young school children (American Psychiatric Association, 1980). Food allergies do not cause hyperactivity; however, caffeine and alcohol stimulate the nervous system.

Iron Intake and Lead Exposure

A significant decline in the prevalence of anemia has been observed among healthy children from 1969 to 1986. Credit is given to improved prenatal and infant care for Women, Infants and Children (WIC) Program recipients. Iron deficiency (<3.5 mg percent) remains the most common nutrient deficiency among U.S. children six months to three years of age. Adolescents have an increased demand for iron to compensate for the increased hemoglobin level with growth. Boys need a 350 mg increase per day, while girls need a 455 mg increase because of menses (Johnson, 1990). National surveys report that adolescent girls twelve to nineteen years old have the highest anemia prevalence rates (6 to 14 percent). These adolescents become the mothers of tomorrow (Wotecki, 1992).

Lead exposure has now become the most common environmental disease of childhood (Needleman, 1991). A strong relationship between blood lead level, hematocrit and age has been noted. The higher the blood lead level, the greater the probability of iron-deficiency anemia; a toxic level is between 10 and 25 micrograms/dl (Schwartz et al., 1990). Lead affects nutrition by displacing essential divalent cations (iron, zinc, calcium) in several metabolic functions, and lead toxicity is associated with deficiencies of iron, zinc and calcium (Neggers and Stitt, 1986). Since the body absorbs lead more efficiently during times of growth, children and infants are susceptible to toxicity.

Even at low levels, lead can affect the central nervous system, hearing, blood pressure and physical growth. Initial signs of lead poisoning include diarrhea, irritability and lethargy. The long-term effects of exposure include lower IQ scores, poorer speech and language performance, impaired attention and an increased risk of attention deficit disorder and hyperactivity.

In one study, 55 percent of African-American children living in poverty had blood lead levels greater than 10 micrograms/dl. The blood lead levels of 579 one- to five-year-old children living near a lead smelter ranged from 11 to 164 micrograms/dl. The younger children with higher blood lead levels also had a higher probability of anemia (Schwartz et al., 1990).

Alcohol and Caffeine Excess

Alcohol provides calories and energy, but most adolescents drink it for fun and pleasure. Supplanting nutrient-rich foods with alcohol sets a child in a dangerous nutrition and accident-prone track.

Forty-five percent of White and 48 percent of Native American high school students in Michigan reported using alcohol. Almost half of the White, Native American and Hispanic male users reported heavy alcohol use (Bachman et al., 1991). Prevalence may be higher among dropouts.

The *Youth Risk Behavior Survey* (YBRS) of ninth and twelfth graders in 1990 reported 88 percent had consumed alcohol, with 59 percent drinking at least once during the last thirty days. Males were more likely than females to drink (62 percent to 55 percent), and twelfth graders were more likely than ninth graders to drink. Thirty-seven percent of males had consumed more than five drinks at least once during the last thirty days (Center for Disease Control and Prevention, 1991a).

In an evaluation of drinking habits of rural students in seventh to twelfth grades, it was noted that 39 percent had ridden in a car with a drinking driver in the past six months and 16 percent had driven after drinking. Both activities increased as grade level increased (Sarvela et al., 1990).

Caffeine is a nervous system stimulant. Although not viewed as a negative dietary component, caffeine may be of increasing concern, as it lowers calcium absorption and increases heart rate and respiration. Arbeit and colleagues (1988) reported caffeine intake per kilogram of body weight of White children ten to fifteen years old was comparable to adults, 2.5 versus 2.6 mg/kg. Caffeine sources for children are carbonated beverages, chocolate candy, chocolate pudding and ice cream, and tea.

Inactivity and Obesity

The prevalence of obesity among children six to eleven years has increased 54 percent since 1970; for 12 to 17 year olds, it has increased 39 percent. Hispanic children are among those experiencing as much as a 120 percent increase in the prevalence of obesity during the past twenty years. Excess intake of high-fat and low-complex-carbohydrate foods combined with minimal physical activity is a major potential culprit for this trend. Children need to be conditioned and equipped with skills to shift food intakes toward higher fruit and vegetable consumption. They also need to be encouraged to increase physical activity and reduce TV watching.

In a 1991 study of 4,771 adult females (Tucker and Bagwell, 1991), the amount of TV viewing was inversely correlated with amount of exercise. Women who reported more than four hours of watching television each day had twice the prevalence of obesity as females who watched less than one hour daily. Women who watched three to four hours of television had almost twice the prevalence of obesity as the group that watched less than one hour.

Children who watch more TV than their peers have greater prevalence of obesity and superobesity (Gortmaker, 1987). During prime-time TV programs and commercials, references to food focus on low-nutrient beverages and sweets consumed as snacks. Emphasis is on "good taste" and "fresh and natural" with minimal attention given to foods consistent with healthy guidelines for children (Story, 1990).

The prevalence of obesity among children of military dependents was observed at two major medical centers (Tiwary and Holguin, 1992). The prevalence was greater among adolescents than among young children. The percentage of very obese children increased from 5.5 percent in 1978 to 9.0 percent in both 1986 and 1990. Children of retirees were more likely to be obese (24 percent) than were children of active duty staff (18 percent), irrespective of age and rank of the parents. These data may indicate that lifestyle changes such as retirement have significant effects for children, too.

The relationship between consumption of high-fat foods, low physical activity and obesity was studied using a case-control design and school children with a 30 percent prevalence of obesity. Thirty-five percent of the girls were obese compared with 26 percent of the boys. The children who consumed high-fat foods but had low physical activity had a 38 percent increased risk of obesity compared with children who consumed low-fat foods and had high physical activity (Muecke et al., 1992).

Eating Disorders and Self-Image

Approximately one million adolescents are affected by anorexia nervosa and bulimia. These eating disorders are thought to arise from pressure to be thin, depression, biological errors and poor self-concept. The *Youth Risk Behavior Survey* (CDC, 1991b) reported that 69 percent of male students considered themselves at the right body weight and 17 percent thought they were underweight. Fifty-nine percent of female students considered themselves at the right body weight, and 7 percent thought they were underweight. African-American students considered themselves less overweight than White or Hispanic students. About 44 percent of the girls were trying to lose weight, but only 15 percent of the boys reported this intent. Even 27 percent of girls who considered themselves at the right weight reported currently trying to lose weight. Weight-loss methods included exercise, skipping meals, taking diet pills and inducing vomiting, which girls reported significantly more often than boys.

One survey reported that 454 White girls, 14 to 19 years old, who responded that their guardians "always" lectured them about food, had significantly higher scores on "drive for thinness" and "ineffectiveness" subscales. Girls who responded that their guardians were unaware of their problems also had higher scores on the "ineffectiveness" and "interpersonal distrust" subscales (Larson, 1991).

In another study, 12 percent of African-American, low-income adolescents thought they had an eating disorder. Those 14 years or older were more likely to think about vomiting to lose weight. Females identified more emotional concerns about being overweight or the need to lose weight. The "desire to do everything perfectly" was related to eating disorders among the middle school students, whereas "feeling ineffective as a person" was related to eating disorders among high school students. Students who had a self-perceived eating disorder were more often above the 50th percentile for weight for height, and accurately perceived themselves as such (Balentine, 1991).

A 22-item questionnaire on weight perceptions was administered to inner-city African-American and White adolescent students, 12 to 17 years old. Forty percent of heavy African-American females compared to 100 percent of heavy White females perceived themselves as overweight and the trend was similar for heavy males. African-American males were more likely to believe that emotions affected eating behavior than White males. African-American females felt lack of exercise accounted for their weight, while White females felt eating habits accounted for theirs. Girls obtained their weight control information from television, family, friends and magazines. Boys used television, family and athletic coaches for advice (Desmond et al., 1989).

After a program to educate high school students, staff and teachers about eating disorders, more questions about eating disorders were answered correctly by participants than by controls (Shisslak, Crago and Neal, 1990). Information alone, however, does not change behavior.

Meeting the Challenge

A current school health education challenge is to address the major nutrition issues. Documenting how eating behavior influences health and how eating behavior in childhood initiates adolescent and adult eating patterns is essential. With structured action plans to coordinate important contributors, the major national initiatives and the dominant nutrition issues, we can meet the challenge and improve the nutritional well-being of children.

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Chapter 16

Educating About HIV/AIDS

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AIDS is the disease of the twentieth century. It is an infectious viral illness that adversely affects the human immune system. Its history is short and its pathology complex. Both its history and its pathology provide insight into the complexity of the school challenge that AIDS presents.

As we begin understanding the severity of this disease, the tragedy of denial becomes clear. As we study its chronology, the necessity of acceptance becomes obvious. The only question that remains is, Are our schools sufficiently dedicated to the well-being of children to take the actions necessary to safeguard children against the major disease of their time?*

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*Comprehensive school health includes policy, as well as environmental and curricular approaches to ensuring a safe and healthy school setting. This description would apply to schools' response to AIDS. Throughout this chapter, discussions of the school response will focus on specifics related to HIV and AIDS. However, many prominent AIDS education agencies recommend that AIDS education fall within the context of a comprehensive school health program (Center for Disease Control and Prevention, 1988).

The History of AIDS and Its Relation to Schools

Although the term *AIDS* was not yet coined, the Centers for Disease Control and Prevention (CDC) identified the first case of AIDS in 1981. Soon after the first case, physicians in New York and San Francisco began reporting a number of homosexual men with a form of cancer called Kaposi's sarcoma. The incidence of this type of cancer was highly unusual for men in their 30s and 40s. Kaposi's sarcoma is more typically found in older adults, people of Mediterranean ancestry and individuals with severely compromised immune systems.

In addition to seeing this uncommon form of cancer, physicians began seeing homosexual men with other rare conditions, including a bacterial pneumonia, Pneumocystis carinii, and a fungal throat infection, esophageal candidiasis. As is the case with Kaposi's sarcoma, these diseases are often found in individuals whose immune systems are not functioning properly (Centers for Disease Control and Prevention, 1981).

The occurrence of these unexpected diseases in homosexual men caused a number of physicians to speculate that the homosexual community was afflicted with a new form of disease that affected the immune system. This new disease was called Gay Related Immune Disease or G.R.I.D. However, soon after the first cases were identified, physicians began seeing immune-compromising conditions in populations other than homosexual males. The term G.R.I.D. no longer accurately reflected the nature of the disease, so the name was changed to Acquired Immune Deficiency Syndrome (AIDS). As increasing numbers of people were becoming ill in the United States, cases also were showing up in of Africa, Europe and Asia. It is a peculiarity of the epidemic in the United States that the first cases were identified in homosexuals.

In most of the world, a majority of the cases have been identified in heterosexuals.

During the early years of the epidemic, the schools had very little interest in the subject of AIDS. The etiology of the disease was unknown, and the precise mechanism of transmission was unclear. Moreover, the occurrence of the disease seemed to be limited to the gay communities of New York and San Francisco. Even in cities where there were large communities of homosexual adults, there was no compelling justification for large-scale caution or concern. Because AIDS did not appear to infect school-age children and its disease process was so puzzling, there seemed to be no imperative for any form of school response.

The 1980s

During the early 1980s, nearly 80 percent of the AIDS cases in the United States were in six large cities in five states: New York, San Francisco, Los Angeles, Newark, Miami and Houston. By the end of the decade, cases of AIDS had been reported from every state, U. S. territory and most cities. Currently, more than thirty metropolitan areas report a cumulative incidence of more than 1,000 cases (Centers for Disease Control and Prevention, 1992).

Although the vast majority of reported AIDS cases in the 1980s were still from the homosexual community, the number of cases identified in individuals who used injectable drugs was increasing. Soon after the association between needle use and AIDS was described, women began to be diagnosed with similar symptoms. These women were exposed to the infection either because they were injecting drugs themselves or because they were the sexual partners of infected men. In the view of many researchers, infected women added two very serious dimensions to the AIDS epidemic: the confirmation of heterosexual transmission and the possibility of mother to baby (perinatal) transmission. By the mid-1980s, many cases of AIDS were showing up in people who had had transfusions with blood or blood products, especially young men with hemophilia.

Several hemophilia-related AIDS cases reported from central Florida made national news because the young men suffered discrimination both at home and in school. Their community insisted that these young men be removed from direct contact with other children and adults, especially while at school. Under national scrutiny, these students and their families experienced personal violence and social rejection. Media attention forced the local school to contend with a range of AIDS issues, from instructional to environmental.

Soon after the Florida incident, Ryan White, a midwestern youth with hemophilia, became a national figure because of his willingness to fight publicly the school discrimination he was experiencing. His story was so widely publicized that schools everywhere were pressured to develop local AIDS policies. These events, as well as disclosures that prominent public figures had died of the disease, made the subject of AIDS one that the schools could no longer dismiss.

As AIDS began its spread across the geography of the United States and into populations other than gay men, a demand for a better understanding of the disease and of its transmission mechanisms began. Scientists in France and the United States first isolated the human immunodeficiency virus (HIV) in 1983. These same scientists confirmed that HIV causes AIDS in 1984.

An unfortunate legacy of the United States response to AIDS is that it was not until the disease had spread to "safe" populations, such as those with hemophilia, that the American public began demanding that intensive research be initiated and prevention and education programs be started. With this increased pressure, schools began to take action. Many schools initiated policies outlining the procedures necessary to respond to students and personnel who might be infected and began the difficult task of developing an instructional response to the AIDS epidemic.

The 1990s and the Future

By the end of the 1980s, more than 100,000 people in the United States had died of AIDS-related causes. The rate at which people were dying of HIV/AIDS was accelerating. In 1990 alone, approximately 39,000 people died of AIDS-related causes, accounting for nearly one-third of all deaths since the beginning of the epidemic. Currently, about 100 people with AIDS die each day, which equates to one AIDS death every fifteen minutes.

The data indicate that during the 1990s, HIV will continue to spread across this nation with great speed. HIV will continue to penetrate into populations other than homosexual males. The future will include increasing numbers of HIV infection in women, children, adolescents, heterosexuals, injection drug users and people of color. Hispanics and Native Americans in the United States, and Asians, particularly Thais, worldwide, along with the homosexual community, will continue to suffer disproportionately from this disease.

At its current rate of increase, HIV/AIDS will become a leading cause of death among youth and young adults in the United States and will place a substantial burden on the country's social and economic resources. The United States can ill-afford to lose its young productive citizens to a costly disease at a time when the demography has shifted toward an older population (National Commission on AIDS, 1991).

The schools will be expected to take direct leadership in ensuring that young people and their families are aware of the transmission routes and the prevention steps necessary to avoid infection. They will be expected to use culturally appropriate HIV/AIDS education materials targeted toward African Americans, Hispanics, Native Americans and other ethnic minorities. Moreover, the schools will be expected to have clear policies regarding the response to infected individuals, including students, faculty and staff.

Key Points

1. HIV/AIDS is not a gay disease. In most of the world, HIV is transmitted heterosexually.
2. HIV infection is not confined to a few places in the United States. Every state and most cities have reported people infected with HIV.
3. HIV/AIDS is becoming a leading cause of death in young adults in the United States.

Basic AIDS Pathology and Its Effect on the School Environment

HIV is a type of virus called a retrovirus, which means that it has a central nucleic acid core of RNA rather than the more common viral core of DNA. Because of the biochemical differences between RNA and DNA, retroviruses are more difficult to study. They are unstable in their genetic make-up, which makes developing a vaccine or producing medicines against them a greater challenge than against DNA-cored viruses. The basic structure of the virus consists of an outer coat of protein and the inner core of RNA. When infected with HIV, the human body generates antibodies against the protein coat of the virus.

HIV selectively infects certain cells in the human body. The primary cells that are infected are types of white blood cells called T-helper (T4 or CD4) lymphocytes and the macrophages. These white blood cells are responsible for the normal functioning of the human immune system and the production of antibodies. HIV infection results in the destruction of these cells.

Without these cells, individuals can no longer make antibodies against infectious microorganisms. They therefore become ill from diseases that are normally prevented by antibody action. Many of the symptoms associated with AIDS are called opportunistic infections, because they are caused by microorganisms that take the "opportunity" to infect individuals with compromised immune systems. These microorganisms are widespread and are not normally pathogenic. In the presence of a diminished immune system, they cause serious and often life-threatening infections. This explains the curiosity surrounding the rare types of infections seen in the first cases of AIDS.

Even though HIV attacks the white blood cells responsible for making antibodies, not all of the cells are destroyed at once. The human body continues to make more white blood cells, which, in turn, continue to recognize HIV as a pathogen and make antibodies against the virus. However, as the number of viruses increases, the immune system becomes overwhelmed and gradually loses the ability to produce enough white blood cells and the corresponding antibodies. This begins the AIDS disease process.

With the discovery of the virus that causes AIDS, scientists began to make a distinction between being infected and having AIDS. Individuals are considered to have AIDS when they begin to show signs of opportunistic infections or their white blood cell counts are very low. In the absence of low white blood cell counts and opportunistic infections, individuals are considered to be HIV infected. All people with AIDS are HIV infected, but not all people with HIV infection have AIDS.

The average time between the initial infection and the body's inability to produce sufficient white blood cells is from seven to ten years. During the time between infection and illness, infected persons have no apparent disease but are capable of transmitting the infection to others. This duration of time is called the incubation (or latent) period. What makes AIDS unique is the length of the incubation period. It is unlike other infectious diseases, such as measles, tuberculosis or gonorrhea, in which the incubation period allows for an estimation of the conditions of exposure (person, place and time). AIDS' long incubation makes defining the conditions of exposure very difficult.

Children with AIDS are susceptible to opportunistic infections, just as adults with AIDS are. Children with AIDS who attend school are likely to become infected with microorganisms that would not be pathogenic to healthy students. When people are asked what they fear most about having children with AIDS in school, a frequent response is the fear of "spreading the AIDS infection." Yet, in reality, it is the other way around. People with AIDS are more likely to pick up infections from other individuals, pets and the environment than are noninfected people. Because there is no evidence that HIV is spread through casual contact, children with AIDS will not spread the disease to other children who share the same classroom, bathroom or cafeteria (Lifson, 1990).

It is impossible to tell "just by looking" whether individuals are infected with HIV. In fact, the infected individuals themselves may not know their disease status. Therefore, it is essential that school curricula explain the need to be careful with sexual encounters and drug use at all times and not just at times when there is a perception of high risk.

Serological Testing

Advances in the understanding of the composition and behavior of the human immunodeficiency virus allowed scientists to develop procedures for testing blood for evidence that it might be HIV infected. The bases of the HIV testing are procedures that measure the presence or absence of the antibodies made by the white blood cells against the virus. The first tests became available in 1985 and were used to screen the donated blood supply. This same year the use of the tests expanded to include testing the HIV status of individuals.

Two tests are usually used in tandem to determine the HIV status of individuals. These tests are called the Enzyme-Linked Immunoassay (ELA) and the Western Blot (WB). Due to the different biochemical nature of the tests, and to ensure that the results are as accurate as possible, individuals are considered to be positive when their blood samples yield two positive ELA tests and one positive Western Blot.

For babies born to HIV-infected mothers, the testing scenario is somewhat different. The procedure for testing the blood of infants for HIV infection is the same as for adults. However, all babies are born with immature immune systems. They are unable to make antibodies on their own for the first six to nine months of their lives. Nature protects newborns by providing them with doses of their mothers' antibodies until such time as they are capable of making their own.

Therefore, testing the blood of newborns for the presence of HIV antibodies is a test of the presence of their mothers' antibodies. All babies born to HIV-positive mothers will test positive during their first months of life. Although estimates vary, children will have to be approximately 12 months old before confirmatory HIV testing can be done to assess accurately whether they are making their own antibodies against the virus. Children who are not infected will lose their maternally acquired antibodies and will test negative. Children who are infected will begin to produce their own antibodies against HIV and will continue to test positive.

Negative results from the serological tests do *not* prove that individuals are free from HIV. Because the tests measure the presence or absence of antibodies to the virus and not the virus itself, there is a possibility that the titer (amount) of antibody in the blood is insufficient to produce a positive test. This would be the case with newly infected individuals. Even though their tests may be negative, such people could still transmit HIV to others. Generally, it takes from six weeks to several months for the number of antibodies to reach an amount that can be measured.

Scientists continue to explore serological testing procedures that measure the presence or absence of the virus. Confirmation of the virus would allow for the determination of HIV status very early in the infection cycle. The most promising procedures involve analyzing blood for pieces of the protein coat that surrounds the outside of the virus. However, it will be many years before these tests will be widely available.

With the onset of serological testing, a false sense of assurance that infected persons can be identified has developed. As can be seen from the nature of the testing, however, this is not the case. Therefore, large-scale screening programs and required testing associated with obtaining marriage licenses or teaching certificates is an unwise use of resources. These resources could be better used by developing quality HIV/AIDS educational materials for use in community interventions and comprehensive school health programs.

In the absence of a cure, the reality is once positive, always positive. If individuals test positive and their condition becomes known, they may experience discrimination and bigotry through being denied health care benefits, professional advancement and/or access to children.

For the schools, there are several important responses to serological testing. The first has to do with the increasing likelihood that people will become aware of infected yet still healthy students, teachers or other staff. The schools must have policies that describe their response to infected people. These policies should address such things as how to handle the confidentiality of personnel and student records, answer inquiries about the HIV status of these individuals, provide staff development HIV programs, and react to demands from the public to remove HIV-positive individuals from the classroom. (See Appendix F for characteristics of effective policies.)

The second response is in regard to curricula. As society increasingly calls for universal HIV testing, the public might falsely accept the absoluteness of the HIV test. Students must be instructed as to the purpose, reliability and validity of the HIV testing protocols. For example, young people may be fooled into believing that individuals are not subject to infection if they carry an "HIV-free" result from serological tests. An HIV-free designation could provide the illusion of immunity, thereby encouraging them to engage in sexual or needle-sharing activities without precautions. The over-reliance on serological testing procedures is both erroneous and dangerous. The school curriculum must be diligent in dispelling this myth.

Key Points

1. Not all babies born to infected mothers will develop HIV infection.
2. Babies who develop HIV infection during infancy were born to mothers who had the infection.
3. All babies born to HIV-infected mothers will test positive for HIV at birth, but only 20 to 30 percent will actually have HIV infection.

Development of Chemotherapy

Not until the late 1980s were any drugs available to forestall the demise of the immune system associated with HIV. The currently available medications (AZT, ddI, ddC) work by suppressing a key step in the life cycle of the virus. These drugs inhibit the reproduction of the virus in cells that are newly infected, but do not stop production in cells already infected. Because they do not stop the initial infection and do not destroy all of the virus, these drugs are not vaccines or cures. Rather, they are considered treatments that slow down the progression of the disease.

These drugs are life extenders; they can give a greater quality and quantity of life to infected individuals. Nevertheless, they are strong medications with powerful side-effects that many infected people cannot tolerate. Often, even in the presence of advancing disease, people will elect to stop the medications. There is continuing research to find a vaccine and a cure, but progress is slow and the possibility of this happening is unlikely for many years to come.

With the onset of potent therapies has come an increase of two important time durations: (1) the time between initial infection and the onset of AIDS, and (2) the time between the diagnosis of AIDS and death. With each of these extensions, serious issues force schools to examine their approach to HIV/AIDS.

Children who are born infected with HIV can be expected to live longer. As therapies and treatments for children born with HIV become more effective, these children can be expected to live to school age. These children will enter school with their age cohorts and progress with them through the primary, elementary and secondary grades.

Beyond the social problems that could develop because HIV-positive children are attending school, many of these children will require special procedures and medications to be administered at school. To administer some of the therapies, school personnel may require technical skills and access to specialized equipment.

As therapies for adults also become more effective, the schools can expect to see personnel with HIV remain active in the school environment. Individuals who are known to be infected or who are ill will be able to remain productive employees. In order to avoid potential AIDS-associated discrimination, schools need to prepare in advance for the possibility of having HIV-infected children and adults in their setting.

In 1992, the Americans with Disabilities Act prohibited discrimination toward people with HIV infection. In truth, much of the intolerance associated with this disease is difficult to prove and receives tacit, if not overt, support from the public. The schools can expect to have an awkward time balancing the rights of infected persons, be they students or employees, and the expectations of their voting constituents.

Transmission Routes and Their Role in the School Curriculum

From the earliest days of the AIDS epidemic, many scientists believed that AIDS was an infectious disease. This led them to search for the causative agent, the human immunodeficiency virus (HIV). The identification of the virus was not discovery enough to provide an understanding of the entire infection process. It was important to detail the means by which infected individuals transmit the virus to noninfected individuals.

Exposure to Body Fluids

HIV has been isolated from a variety of body fluids, including blood, semen, vaginal secretions, breast milk, urine, tears and saliva. Clearly, any body substance that contains white blood cells has the potential of transmitting the virus.

Although the virus has been found in the listed substances, often the concentration of the virus is so low that these fluids are not considered to be very infectious. This is true for tears, urine and saliva. Casual contact with these fluids is not likely to transmit the infection.

However, blood, blood products, semen, vaginal secretions and breast milk have high concentrations of the virus and are considered to be very infectious. Activities that result in contact with these fluids are classified as high-risk behaviors and should be conducted with precaution. It is very common for blood and blood products to carry pathogens. Hepatitis B is a prevalent and notable example of a bloodborne disease.

Activities that prevent the transmission of HIV will also prevent other forms of serious infections. Therefore, the protocols for HIV/AIDS prevention are recommended as responsible precautions for a wide range of potentially harmful conditions.

In a school environment, many events, such as sports and recreation activities, increase the possibility that people will be exposed to body fluids. For the safety of everyone, schools must have procedures and supplies available that will protect individuals from exposure to blood. These procedures should include access to latex gloves when handling cuts, changing bandages or dressing wounds.

Another common concern is the care of younger or disabled children who are still in diapers, have toilet accidents, vomit or display other behaviors that could result in body fluid contact. Beyond sound sanitation and hygiene procedures, little is necessary to prevent the spread of HIV should any of these children be infected. To prevent the spread of all sorts of infections, personnel should always use latex gloves when handling diapers and other soiled materials. Only in the presence of blood would there be any risk of HIV transmission. In the event of blood, the use of latex gloves would be sufficient. Disposal of diapers should follow standard hygienic procedures (Grossman, 1988).

Some children with behavioral disorders will act out by biting other children. There is no evidence that AIDS is transmitted by biting (Lifson, 1990).

Sexual Behavior

The transmission of the virus through sexual contact occurs in both homosexual and heterosexual activities. These activities include sexual contact between men, between women and men, and possibly between women. The potential for transmission exists with different forms of sexual intercourse, including penile/anal, penile/vaginal and oral/genital sex. There is no form of intimate sexual activity that is completely risk free.

The relationship between the risk of transmission and the various types of intercourse is not known precisely. Evidence does suggest that the sexual partner who is the recipient of the semen has a greater risk of becoming infected than the donating partner. This evidence appears to hold true for both homosexual and heterosexual couples. Additional data suggest that individuals who have genital lesions or ulcers are more likely to transmit or receive the virus. Likewise, sexual activities that cause tissues to rupture or produce blood would also increase the risk of HIV transmission (Osmond, 1990).

The proper use of latex condoms with nonoxynol-9 is an effective means of inhibiting the transmission of HIV (Wofsy, 1988). Although the risk of transmission during unprotected sexual activity is not known, studies suggest that the risk of transmitting the virus from an infected person to a noninfected person with one sexual encounter while using a condom is one in 500 (Cohen, 1990).

Candid discussions about sexual behavior are a tricky proposition for the schools. Sexual expressions are deeply rooted in moral, social and cultural beliefs. Yet, HIV/AIDS is a disease for which candid discussions are necessary if people are going to understand both the severity of the disease and the precautions required to protect themselves from possible exposure.

Many people would like to deny the sexual behavior of adolescents or blame it on curiosity aroused by sexuality education. Developmentally, adolescence is the time for sexual discovery and experimentation. According to the Report of the National Commission on AIDS (1991):

> Recent studies revealed that by age 15, 27% of the girls and 33% of the boys were sexually active. Half of the girls had sex by age 17 and half of the boys by age 16; three out of every four unmarried 19-year-old women and five out of six unmarried 19-year-old men had had sexual intercourse.

Teenage pregnancy rates testify to the level of sexual activity in this population. In spite of protests to the contrary, teenagers are a sexually active population, at risk for HIV infection. In 1988, AIDS was the sixth leading cause of death in 15 to 24 year olds. During the years of the 1990s, AIDS cases in adolescents have increased by 77 percent (AIDS Clinical Care, 1992). These data suggest that teenagers in the United States are sexually active in ways that place them at risk for HIV.

This same group of young people are exposed to the open display of condoms and other contraceptive measures in grocery and convenience stores. Condom jokes and references are on television news and entertainment shows. Specialty condom stores have opened. Condom ads now appear in magazines, newspapers and on television. Yet, school teachers and counselors cannot describe how to use condoms effectively for the prevention of HIV and other sexually transmitted disease (STD). Without question, adolescents live in an ambiguous society—one where they can buy condoms by the dozen but cannot be instructed on how to use them.

Regardless of the social pressures not to act, the schools, along with other social systems, must assume their role of instructing youth on the steps necessary to prevent exposure to HIV. It is unconscionable that sexually active teenagers are permitted to remain ignorant and vulnerable to a deadly disease. Unlike the stigma of getting a "social disease" or the trauma of an unplanned pregnancy, HIV/AIDS is fatal. At a minimum, teachers should be permitted to discuss anything that can be purchased at a grocery store.

Injection Transmission

Transmission of the virus through injection is one of the most certain methods of infection. The sharing of needles between an infected person and a noninfected person amounts to a direct inoculation of the virus. The actual risk of transmission is related to the number of exposures and the concentration of the virus in the contaminated syringe. In some injection-drug-using communities, the prevalence of HIV infection exceeds 67 percent of the population (Chaisson, 1990).

Schools must be relentless in their inclusion of substance use and abuse content in the curriculum. There is little room for a soft response to this problem. Few people object to the schools taking a strong instructional stand in the prevention of drug use. However, the role of the schools in the treatment side of the drug-use equation is less agreed upon.

Young people who are already using injection drugs progressively increase their risk of infection with every shared needle. Moreover, adolescent HIV-infected drug users can be the sexual partners of noninfected, non-drug-using adolescents, further increasing the likelihood of heterosexual transmission of HIV. To reduce the risk of HIV transmission, schools need to take leadership roles in advocating for increased numbers of treatment programs for adolescents.

Although in principle few people object to providing drug treatment programs, most do not want schools to pay for these programs. They see the drug problem as a criminal justice one, not an educational one. Even those who want to support a school role in providing drug treatment for adolescents face the dilemma of allocating revenues to either education interventions or to treatment programs.

Of greater controversy is the call by the National Commission on AIDS to instruct individuals about "safe" needle use. By using bleach to clean the paraphernalia between each injection, the risk of transmission is greatly lowered. Another more contentious recommendation is to develop needle exchange programs, which would allow intravenous drug users to exchange used needles for clean ones.

Beyond the legality issues, this recommendation raises some of the same concerns as those associated with sex education. Many people believe that teaching individuals how to engage in "safer" drug use is tantamount to endorsing the behavior. The appropriate role of the schools in these controversial recommendations will vary according to the prevalence of substance use in their communities and the availability of other drug intervention programs.

Blood Transfusions

Prior to the universal testing of the United States blood supply in 1984, a blood transfusion that contained HIV was a significant inoculation of the virus. People receiving such transfusions almost certainly developed HIV infection with the corresponding progression toward AIDS. A special subpopulation that received enormous numbers of transfusions was people with hemophilia.

When hemophiliacs experience bleeding, they need to infuse themselves with concentrated blood products to stop the bleeding and prevent permanent damage to their joints. As a result of their multiple blood transfusions, many hemophiliacs developed AIDS. Since the beginning of the universal testing program, people with hemophilia are able to take care of their disease without risk of contracting HIV.

Young men with hemophilia became infected with HIV in the early 1980s. They will be a part of the school environment for many years to come. This accentuates the necessity for school policies that outline the procedures for managing HIV-infected students.

Perinatal Transmission

Transmission from infected mothers to their children can occur during fetal development, during delivery and during breastfeeding. The risk of transmission was once considered to be very high, in the range of 60 to 75 percent. Recent studies have lowered the risk of transmitting HIV between mothers and their children to a more modest estimate of 20 to 30 percent (Wofsy, 1990). The precise risk of transmission of the virus by breastfeeding is unknown. However, due to the large number of white blood cells in breast milk, most protocols for HIV prevention recommend that HIV-positive mothers not breastfeed their infants. Due to the biology of the immune system, all babies born to infected mothers will test positive for HIV at birth. This positive test is not confirmatory for the HIV status of the child, but is confirmatory for the status of the mother.

Although there is little direct connection between the perinatal transmission characteristics of HIV and the role of the school curriculum, beyond what might be included in a parenting class or early childhood class, there remains a need for the schools to be knowledgeable of the conditions associated with perinatal transmission. As more women become infected, the numbers of children born exposed to HIV will increase. With the currently available treatments, these children will be healthy enough to enter preschool and early intervention programs such as Head Start. As the treatments improve, HIV-infected children will remain healthy for longer periods and will be entering regular school programs. Soon it will be commonplace for HIV-infected children to participate fully in the entire range of school activities. Once again, this speaks to the need for comprehensive school HIV/AIDS policies.

Casual Spread

Even more controversial than discussing the sexual transmission of the virus is the discussion of contracting HIV infection through casual contact. Although there is no evidence that HIV is spread through such activities as hugging, sharing eating utensils, using the same shower or soap, breathing the same air, or sleeping in the same room, people are reluctant to believe it.

HIV/AIDS seems so mysterious that people expect a more complex and unfamiliar mechanism of transmission. For some people, sexual behavior and drug use are too ordinary to explain away the noxiousness of this disease. Therefore, they doubt the accuracy of the reports from the Centers for Disease Control and Prevention.

In spite of this skepticism, no documentation supports a conspiracy of germ warfare or medical experiments gone awry. Likewise, there is no evidence that HIV is spread through bites of mosquitoes or other insects. HIV is not spread through the air. HIV is not spread by hugging infected people or touching their belongings. After studying more than 200,000 cases of AIDS, there are no known cases linked to any of these behaviors or events.

Regardless of this overwhelming evidence, many people still believe that casual transmission is possible. In the presence of HIV/AIDS, this belief can turn to fear. This fear results in the hostility many schools experience after admitting HIV-infected children or employing HIV-infected personnel.

Key Points

1. There are several very definite ways in which HIV can spread from one person to another:
   - unprotected sexual activity with infected persons
   - sharing contaminated needles with infected persons
   - transfusion or major contact with infected blood
   - transmission between mother and child during fetal development, delivery or breastfeeding
2. These are the only ways HIV is spread.
3. HIV is not spread through casual contact.

Cofactors for Transmission and Their Role in the School Program

Transmission cofactors are those conditions that do not directly transmit the virus but do increase the likelihood that HIV-transmitting behaviors will occur.

Substance Use

The first cofactor is substance use other than injection drugs. Drugs tend to impair judgment, lower inhibitions and increase the thrill of risk taking. After several alcoholic drinks, a snort of cocaine or a few pills, individuals can feel more immune from harm. This feeling increases the chances of unprotected intercourse occurring or the chances that injection drugs will be tried.

Moreover, the continued use of substances can result in a dependency that is costly to maintain. Many young people resort to participating in "sex for drugs" in order to sustain their dependency. Those who perform sex for drugs place themselves in double jeopardy, because they are engaging in numerous sexual encounters and are unlikely to take prevention action to avoid infection with HIV or other STD.

As schools develop programs and adopt curricula directed toward the reduction of substance use, they need to be mindful of the relationship between intoxication and exposure to risk. Classroom discussions about substance use can be used as opportunities to reinforce the HIV/AIDS prevention messages. Likewise, discussions about HIV/AIDS are opportunities to expand the content to include substance use prevention messages.

Sexually Transmitted Disease

The second cofactor of concern is the presence of STD. Many STDs cause genital lesions that can facilitate the viral transmission from one person to another. STD may also increase the likelihood of transmission by expanding the numbers of white blood cells that can come into contact with infected body fluids. STDs that have been associated with increased transmission include syphilis, herpes simplex and chancroid.

Non-lesion-producing STD may also increase the risk of transmission because many of these STDs attract the HIV target cells to the infected areas (oral, anal or genital). For people infected with HIV, having an STD increases the likelihood of spreading the infected cells to noninfected partners. For noninfected people, having an STD increases the likelihood that receptor cells will come into contact with body fluids containing HIV (Osmond, 1990).

In addition to the risk of transmitting HIV, STD is a measure of unprotected sexual activity in a population. Since World War II, and until recently, syphilis has been on the decline in the United States. During the last years of the 1980s, however, many urban and rural communities began experiencing a dramatic rise in the number of syphilis cases, especially in the younger populations in which sex for drugs is a factor.

Left untreated, syphilis can be a debilitating disease, with major social and health consequences to the infected persons and to the children born to syphilitic mothers. The symptoms of syphilis come in four stages that extend over a lifetime if the disease is untreated. The most noticeable symptom is a sore called a chancre which appears from a week to three months after exposure. If individuals have both syphilis and HIV, the virus is present in very high concentration in chancres, and these sores make the transmission of HIV more likely.

Many STDs, most notably syphilis and gonorrhea, are treatable with penicillin and other antibiotics. Strains of gonorrhea within the United States have become resistant to antibiotics, resulting in an increased spread of the penicillin-resistant strains. In women, the inability or failure to treat STD can result in serious infections that penetrate the reproductive system, causing pelvic inflammatory disease and sterility. Untreated oral gonorrhea can result in a disseminated infection that spreads throughout the entire body. The symptoms associated with gonorrhea usually appear from several days to a couple of weeks after exposure. They can be very mild in women and are often overlooked.

Gonorrhea is often accompanied by chlamydia, which is the most common bacterial STD in the United States. In women, chlamydia can cause very serious problems, such as pelvic inflammatory disease, sterility, urinary tract infections and possible complications during pregnancy. In men, chlamydia usually causes an inflammation of the urethra, prostate and/or rectum. Anal chlamydia has also been associated with the sexual abuse of children.

Chlamydia is treated with large doses of antibiotics: Although the symptoms associated with chlamydia are so mild that they may go unnoticed, when they do appear it will be from one to two weeks following exposure. Characteristics of chlamydia that increase the risk of HIV transmission are unusual vaginal bleeding and bleeding after intercourse.

The condition called herpes is caused by viruses and comes in two varieties: herpes simplex virus Type I (HSV I) and herpes simplex virus Type II (HSV II). In general, HSV I occurs around the face and mouth and causes fever blisters or cold sores. HSV I does not appear to be transmitted from one person to another.

HSV II occurs in the genital area and causes blisters similar in appearance to the cold sores associated with HSV I. These painful blisters break and ooze fluid full of the virus. HSV II can be transmitted through direct contact with the virus found in the blisters. A greater acceptance of oral sex practices has led to HSV II blisters also occurring near the mouth and oral cavity.

Herpes infection has active stages when the blisters are present and remission periods when there is no sign of the disease. Although transmission is more likely during the active stage, it can occur during times of remission as well. Once infected with HSV II, there can be periods of remission followed by reoccurrences throughout life. There is no cure for herpes infection. Symptoms of the disease occur between two days and three weeks after exposure. People with active HSV II are at greater risk for HIV transmission.

Another common viral STD, genital warts, is caused by Human papillomavirus (HPV). There are more than twenty types of HPV that cause warts or flat lesions in the human genital area. There is some evidence that HPV is associated with increased risk of cervical cancer. The cures for HPV are similar to those used in treating warts on other parts of the body: they are burned off chemically or removed surgically. Symptoms of HPV infection occur from three weeks to eight months after exposure. The relationship between presence of genital warts and the transmission of HIV is not known.

Just as with HIV, viral STD infections are neither easily treatable nor curable. Antibiotics, although effective against many bacterial STDs, are not efficacious in treating viral infections. Untreated STDs are very serious, but they rarely result in death.

HIV, which is transmitted in a similar fashion, is both untreatable and fatal. Another striking difference between STD and HIV is the length of time from exposure to symptoms. With most STDs, the time between infection and symptoms can be from a few days to many months; with HIV, the time ranges from seven to ten years. Regardless of the comparisons between HIV and STD, one fact is indisputable: people who place themselves at risk for STD are simultaneously placing themselves at risk for HIV.

Many school health curricula include the discussion of HIV/AIDS in the subject area of sexually transmitted disease. This fits comfortably with the sexual transmission of the virus. HIV/AIDS and other STDs are prevented through similar means: abstinence, mutual monogomy, and condom use. The inclusion of HIV/AIDS with STD provides a larger conceptual frame from which to describe the harmful social and economic consequences that result from infectious diseases that are left unchecked.

This relationship provides an opportunity to highlight the public health approach to curbing the spread of disease, which includes an analysis of the circumstances that surround exposure to the infectious agent. The public health approach concentrates on behaviors that place people at risk for the infection rather than emphasizing the nature of the persons who are infected. By embedding HIV/AIDS discussions in the larger topic of STD, these discussions are less vulnerable to attack from groups who oppose the inclusion of HIV/AIDS in school health programs in stand-alone HIV/AIDS units. Additionally, linking STD and HIV/AIDS can strengthen young people's sense of vulnerability about becoming infected through unprotected sexual intercourse. However, it is important not to lose sight of the other routes of HIV transmission, most specifically injection drug use.

Tuberculosis

Although not a true cofactor, tuberculosis (TB) is emerging as a serious consequence of the HIV epidemic. During the early 1900s, tuberculosis was a leading cause of death in the United States. TB is a very infectious, contagious and debilitating disease. The bacterium that causes TB, *Mycobacterium tuberculosis*, is spread from infected people to noninfected people through the air. People who are infected can easily spread the disease to others through coughing, sneezing and spitting. However, with improved diagnosis and treatment, the disease had been on the decline until the middle 1980s. Most states closed their TB sanitariums and the former American Tuberculosis Association changed its name to the American Lung Association.

Now the incidence of TB is on the rise in populations whose immune systems are compromised by HIV, poor nutrition, alcoholism, drug use and other degenerating illnesses. It is now quite common to find active TB in people with HIV/AIDS, the homeless, alcoholics and drug users. There is a serious correlation between the risk factors for TB and the risk factors for HIV. Many populations who are infected with HIV are also infected with TB. Unlike HIV, where the virus is not transmitted through casual contact, TB is spread very easily by breathing the TB bacillus.

Coincidental to the rise of TB cases, there has been an increasing incidence of drug-resistant TB strains. These strains persist in an infectious and contagious state even after several rounds of treatment protocols. The fear of drug-resistant TB can result in many people with HIV/AIDS, or those who engage in risk behaviors associated with HIV/AIDS transmission, being denied medical or social services.

Because historically the schools were often associated with TB epidemics, in many states school teachers were required to have annual chest X-rays or tuberculin skin tests prior to the beginning of the school year. With the decline of TB, many schools dropped these requirements during the 1970s. In the event of an epidemic of drug resistant strains of TB, the public could demand the return of X-rays and skin tests for school personnel.

In early school health curricula, the prevention of TB was included as part of the content. With the advances of modern medicine, most school health curricula deleted any references to TB. A parallel deletion occurred in the curricula of medical and health professional schools. Many practicing physicians, nurses and public health officials have never treated patients with TB.

If the TB problem continues to grow, schools might be asked to include TB education as part of the comprehensive school health program. Additionally, public health officials might require school health personnel to obtain continuing education about the diagnosis and treatment of tuberculosis.

Ignorance Is *Not* Bliss

AIDS jolted the American people. It has awakened us to the scary reality that a disease anywhere is a possibility of a disease everywhere. The decade of debate over the propriety of including discussions about homosexuality, sexual practices, STD and condoms in school curricula wasted valuable time. The failure to take swift, direct and persistent action to alert the public about the pathology of HIV/AIDS has placed entire populations at risk for contracting it.

AIDS has reminded us that the adage "Ignorance is bliss" was incorrect. While the nation was engaging in fruitless arguments about the vulgarity of the disease and the worthiness of the people it infected, AIDS was becoming a leading cause of death in the country. If AIDS has taught us anything, it has taught us that denial, fear and condemnation do not prevent epidemics. The question remains, Do the schools have the courage to take their rightful place in protecting America's children against the major disease of their time?

If we do have the courage to prepare our children to handle today's realities of HIV/AIDS, we will be investing in our future. Not only will we be preparing them to avoid a mortal disease, we will be modeling for them the type of valor they will need to respond to the disease realities of tomorrow. There is no assurance that AIDS is the last "new" disease that will test our sensibilities and require bold action. And what happened with the HIV/AIDS epidemic should never happen again.

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Chapter 17

Injury Prevention

David A. Sleet, PhD

The health status of American children has changed significantly in the last forty years. Widespread immunization programs have virtually eliminated the threat of infectious diseases such as polio, diphtheria and pneumonia. However, one health problem continues to threaten the life and health of school-age children and youth—injuries. Childhood injury is the major cause of excess child mortality in the United States; it causes more deaths to school-age children than all childhood diseases combined (Rosenberg, Rodriquez and Chorba, 1990). In fact, injury is today's primary public health problem for Americans under the age of 44.

In contrast to the reductions in infectious disease rates, the number of injury deaths has shown only a slight decline in the last twenty years. From 1975 to 1986, while deaths from collisions between motor vehicles and pedestrians declined by 16 percent, injury deaths from homicide declined by only 7 percent; and suicide deaths increased by 2 percent (Baker et al., 1992). Recent data suggest that injuries to American children and youth could be dramatically reduced by improving programs for injury prevention and control.

The school plays an important role in encouraging injury prevention. Behavioral, environmental and social control measures can be implemented in the school to ensure the safety of children and youth. The school's role as a community resource also provides an opportunity for school administrators and teachers to play a more active part in advocating state and federal injury prevention legislation, local and community regulation, and district and school policy reform. Parents and teachers need training in effective injury prevention education programs at school, at home and in the community. Children need the foundation of decision-making skills regarding injury-risk behaviors and injury-avoidance strategies.

Injury as a Public Health Problem

According to the National Academy of Sciences (1988), "Injury is probably the most underrecognized major public health problem facing the nation today." Injuries, both unintentional and intentional, are a major public health problem in America. In fact, each year, injury is the number one cause of death among school-age children and youth in virtually every country in the world (Egger, Sleet, Harrison et al., 1993). Why then hasn't injury prevention been given a more prominent place in health promotion and disease prevention efforts?

One reason injury prevention traditionally has not been embraced within public health is that injuries have been considered the result of "accidents." *The Oxford English Dictionary* defines the term *accident* as "an event without apparent cause...unexpected

...happening by chance." In geology, an accident is "an irregularity on a surface, the explanation of which is not readily known."

Accidents have been viewed as random and uncontrollable "acts of fate," unpredictable and unavoidable. But this is not true. We know from the science of injury prevention that the events that cause injury are not accidents or random events—they are predictable and many are preventable.

The modern public health approach recognizes injury as a public health problem that can be understood and controlled with the same measures we have directed against disease. Injury results from the interactions among an injury-producing agent (such as kinetic energy), the environment (such as a playground) and a susceptible host (such as a young, curious child).

Injury can be controlled by preventing its occurrence or minimizing its severity. In the case of a sports injury, damage to the host—the person harmed—is brought about through a rapid transfer of kinetic energy (from movement). Changing this pattern of energy transfer, either by making the host more resistant to it or by separating the host from the energy exchange in the environment, is part of the science of injury prevention.

Research and practice in injury control indicate who is at risk for particular injuries and what works to prevent such injuries. A "systems approach" in the schools, one that combines structural, environmental and educational elements, is likely to yield the best results. This approach requires the involvement of school districts, teachers, social workers, police, principals, engineers, playground designers, sports medicine experts, coaches, road safety professionals and health professionals. Prevention will pay off only through multidisciplinary collaboration. This collaboration is especially important in the area of violence prevention.

What Is Injury?

The word *injury* has its root in the Latin term *in juris,* which literally means "not right." The dictionary defines injury as "harm of any kind, done or sustained." Injury, as used in public health, is defined as "unintentional or intentional damage to the body resulting from acute exposure to thermal, mechanical, electrical, or chemical energy or from the absence of such essentials as heat or oxygen" (National Committee for Injury Prevention and Control, 1989). The terms *injury* and *trauma* are often used interchangeably.

Although there are many kinds and causes of injury, two main categories have been defined. *Acute exposure to energy* includes injuries resulting from falls, motor vehicle crashes, firearms, violence and many sports injuries (kinetic); fires and burns (thermal); poisonings (chemical); electrocution (electricity); and radiation. *Absence of essentials* includes lack of oxygen (as in asphyxiation or drowning) and lack of heat (as in hypothermia or frostbite). Injury may be *intentional* (deliberate), as in murder or suicide, or *unintentional* ("accidental") as in a fall or poisoning.

Since the term *accident* implies an unavoidable event, it should not be used when referring to injury—the medical consequence of an event that may be largely preventable. Using terms such as *injury control* and *injury prevention* rather than *accident prevention* helps make clear the potential for preventing such events. As former U.S. Surgeon General C. Everett Koop put it:

> We must accept that the injuries associated with motor vehicles are not "accidents" and that much can be done to reduce them. We must realize that violence in the forms of abuse, assault or suicide is...within the purview of...the health system. An informed and aroused public can change the behavior

> of each of us, but more importantly, it must lead to community outrage and action in regard to unsafe playgrounds, automobiles, highways, work places, toys, homes and use of handguns." (National Committee for Injury Prevention and Control, 1989)

The Magnitude of the Problem

While you read this chapter, approximately nine Americans will be killed and about 765 others will suffer a disability from injury. On an average day in the United States, more than four hundred people die and 170,000 seek medical care as a result of injuries (National Committee for Injury Prevention and Control, 1989). On average, there are ten unintentional injury deaths and about one thousand disabling injuries every hour (National Safety Council, 1992).

From a few months of age through age 44, injuries are the leading cause of death in the United States. One source estimated that for children ages five to nine, the risk of dying from injuries during the next 15 years is 2.6 times greater than the risk of dying from all other causes combined (Budnick and Chaiken, 1985).

About 75 percent of children's injury mortality is caused by unintentional injury, with motor-vehicle-related injury deaths responsible for the greatest proportion. The remaining 25 percent is caused by violence, principally homicide and suicide. In 1988 in the United States, injury claimed the lives of more than 22,000 children under age 19; it accounted for 80 percent of the deaths from all causes in the 15- to 19-year-old age group (Children's Safety Network, 1991). As C. Everett Koop once noted: "If a disease were killing our children in the proportions that injuries are, people would be outraged and demand that this killer be stopped" (Koop, 1989).

Figures 1, 2 and 3 present childhood injury deaths by cause and age. When viewed together, motor-vehicle-related injuries are the major cause of death in school-age children and youth.

Figure 1 shows that the four leading causes of injury death to elementary-school-age children (ages 5-9) in 1988 were pedestrian, motor vehicle occupant, fire/burns and drowning. Pedestrian and motor vehicle occupant injuries accounted for nearly 40 percent of all deaths in this age group.

For middle-school-age children (ages 10-14), the leading causes of injury death are motor vehicle occupant, pedestrian, homicide, suicide and drowning. Intentional injuries account for nearly 20 percent of the injury deaths of these children. (See Figure 2.)

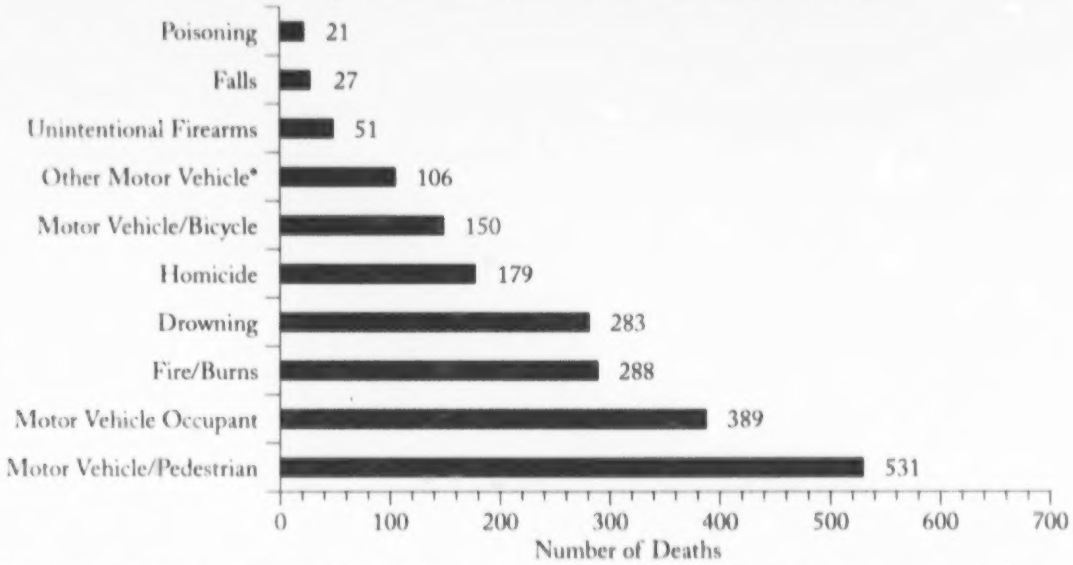
For high-school-age youth (ages 15-19), motor vehicle occupant injuries are the leading cause of injury-related death. Twice as many 15 to 19 year olds die as occupants of motor vehicles than from any other cause. After motor vehicle occupant deaths, homicide and suicide are the major causes of mortality in this age group. (See Figure 3.)

Costs

Overall, estimated total lifetime costs of all injuries in 1985 exceeded $158 billion, with unintentional injuries accounting for two-thirds of these costs. Injury costs include emergency medical treatment and rehabilitation costs, as well as costs due to lost productivity and the value of goods and services not produced because of injury. One study found that among children ages zero to 19, three causes of injuries account for 60.5 percent of the total initial medical costs: transportation injuries, falls and sports injuries (Malek et al., 1991).

Figure 1

Number of Injury Deaths by Cause, Children Ages 5–9 (1988)

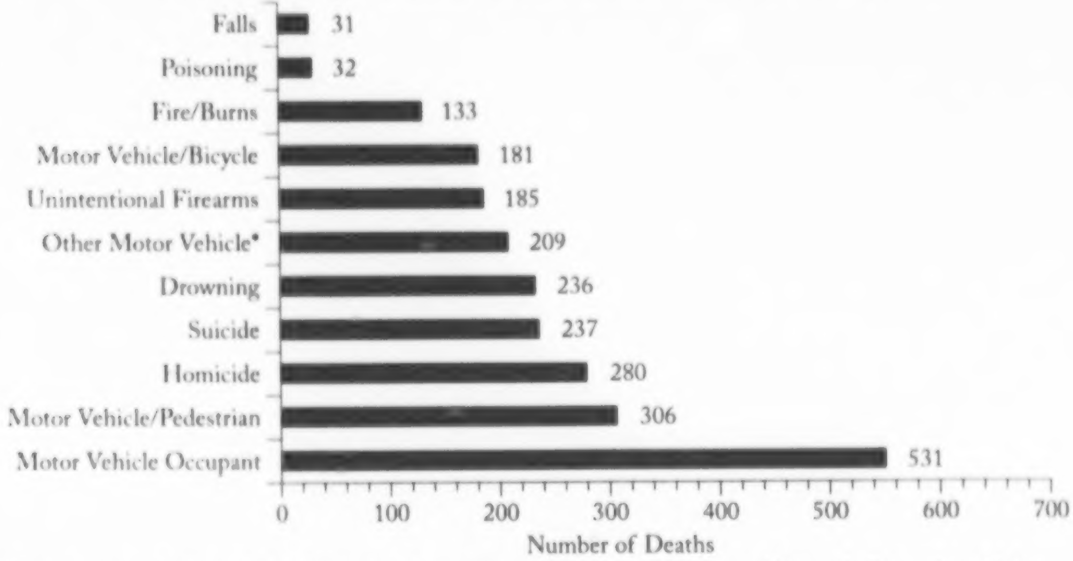


*Other motor vehicle includes deaths involving motorcycles, mopeds, snowmobiles and all-terrain vehicles.

Source: Children's Safety Network. 1991. *A Data Book of Child and Adolescent Injury.* Washington, DC: National Center for Education in Maternal and Child Health.

Figure 2

Number of Injury Deaths by Cause, Children Ages 10–14 (1988)

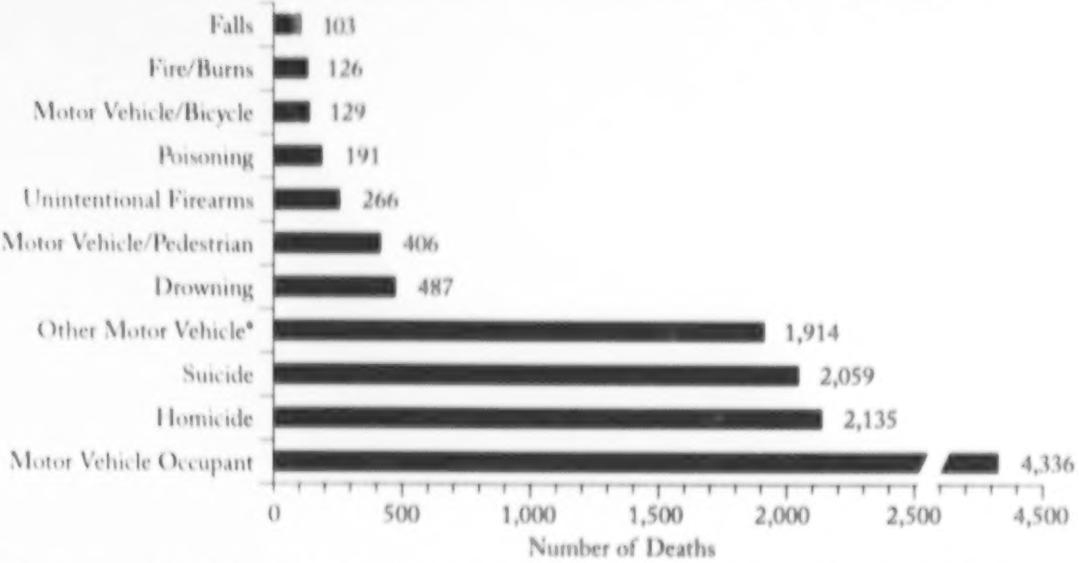


*Other motor vehicle includes deaths involving motorcycles, mopeds, snowmobiles and all-terrain vehicles.

Source: Children's Safety Network. 1991. *A Data Book of Child and Adolescent Injury.* Washington, DC: National Center for Education in Maternal and Child Health.

Figure 3

Number of Injury Deaths by Cause, Adolescents Ages 15–19 (1988)



*Other motor vehicle includes deaths involving motorcycles, mopeds, snowmobiles and all-terrain vehicles.

Source: Children's Safety Network. 1991. *A Data Book of Child and Adolescent Injury.* Washington, DC: National Center for Education in Maternal and Child Health.

Risk Factors

Injury types and rates vary according to demographics, age, sex, stages of growth and development, and environmental risks. Consequently, injury prevention strategies must be tailored to individual risk groups and developmental stages.

Age. Deaths from aspiration and choking are high in infancy. Deaths from drownings peak at around age three, as do burn deaths from house fires. Preschoolers die from falls, as pedestrians (usually in a driveway) and from poisonings. Pedestrian deaths in traffic increase to age six and then decline, replaced by bicycle injuries to age 14. Unintentional firearm injury deaths steadily increase from ages 5 to 19. Homicide and suicide show dramatic increases beginning at age 15, as do drownings, poisonings and deaths as motor vehicle occupants.

Alcohol/Drugs. Alcohol and its role in injury commands special attention as a risk factor. The effects of alcohol can be measured across virtually all injury categories. About half of all motor vehicle and homicide deaths are associated with alcohol. Alcohol and other drugs contribute significantly to suicide, fires, falls, drownings and assaults. Alcohol impairs physical abilities and affects judgment. Alcohol and other drugs can also increase aggression and risk-taking behavior.

Gender. Males consistently have higher rates of injury than females. This difference is probably due to greater exposure to risks and increased risk-taking behavior. Males are also 2.5 times more likely to die from injury (U.S. Department of Health and Human Services, 1991). Males are almost four times more likely to be victims of homicide, almost three times more likely to drown and 6.5 times more likely to be the victim of an unintentional firearm discharge (Children's Safety Network, 1991).

Socioeconomic status. Persons from lower socioeconomic status have higher injury mortality rates, although there are exceptions for certain types of injuries. Families in lower-income areas are also less likely to have safety devices on hand, such as child safety restraints, fire extinguishers and smoke detectors.

Geography/Residence. Rural populations have higher injury death rates than urban residents, probably due to greater hazards, higher road speeds, and delays in obtaining emergency assistance. Climate, seasonal changes and access to quality medical care are also characteristics of geography that affect injury rates and injury outcomes. Fire-related deaths are more common in areas with poor housing standards and crowding; drowning in hot climates, in summer, and among residents with backyard pools; homicides and poisonings in large metropolitan cities; unintentional and intentional shooting deaths in homes with easy access to guns; and motor vehicle deaths among residents in less densely populated areas.

Ethnicity. Higher death rates from unintentional injury occur among African Americans than among Whites over the entire age range (Gulaid et al., 1988), with African-American males generally having the highest death rates. Native Americans and Native Alaskans have disproportionately higher death rates from motor vehicle crashes, residential fires and drowning (Indian Health Service, 1989), especially in reservation states in the western United States. Suicides are also prevalent among some tribes (Smith et al., 1992). These differences may reflect important socio-economic, environmental or lifestyle factors.

Nonfatal Injuries

Injury deaths are only a small part of the problem. Millions are incapacitated by injuries; many suffer lifelong disabilities. Nonfatal injuries account for one in every six hospital days and one in every ten hospital discharges (U.S. Department of Health and Human Services, 1991). A population-based study in Massachusetts found that for each injury death, there were 42 hospitalizations and 1,121 emergency room visits (Gallagher, 1991). More than 25 percent of all emergency room or hospital visits are for the treatment of injuries (Rivara and Mueller, 1987). In addition, injuries are the leading cause of physician contacts. One out of four Americans seek medical care for an injury each year. At the current rate, one in nine children born today will be hospitalized for an injury during the first 15 years of life.

Childhood injury mortality figures are shocking. However, mortality is only a small part of the total injury picture. Interventions targeted solely at injury deaths may neglect nonfatal injuries that require hospitalization and may leave children permanently disabled. Interventions targeted only at preventing injury deaths may neglect the potential for preventing more frequent and costly disabling and nonfatal injuries.

Controlling Injuries

Advances in injury prevention have been dominated by one of two, frequently conflicting, approaches: "active" or behavioral approaches and "passive" or environmental approaches. Although both have an important role to play, neither approach presents a complete solution to the injury problem. Health promotion approaches provide an alternative that allows for both behavioral and environmental intervention to control injuries (Sleet, Wagenaar and Waller, 1989).

Active Versus Passive Approaches

Active approaches require some human effort or behavioral change to be effective. Active approaches can be simple, relying on one-time behavior (placing dangerous equipment out of reach of children) or more complex frequent behavior (putting on a bicycle helmet). Active interventions place the emphasis for prevention almost entirely on the individual. They emphasize behavioral change and modification of lifestyle. The approach is epitomized in the view that the great majority of controllable risk factors associated with injuries are behavioral in nature and that injury prevention can be realized through individuals taking greater responsibility for their own health (Roberts, Fanurik and Layfield, 1987).

Passive approaches require little or no human effort to be effective, relying instead on changes in the environment or in technology. Passive approaches (such as smoke detectors, air bags, break-away goal posts) work automatically to protect people from injury. Automatic protection places emphasis on modifications in the physical environment (playing fields and surfaces, protective equipment) and the psychosocial environment (modified rules, social norms and expectations), as well as in products that cause injury (chemicals, machine tools, pools, guns). These modifications require little or no individual action on the part of those being protected. This approach stresses the importance of the role of the social, political, economic and physical environments in determining injury behavior (Wilson and Baker, 1987).

Although active and passive approaches overlap considerably, they have important differences. Passive approaches, when applied to large populations, have the greatest potential for effectiveness, but they are not available for all injury risks and are frequently difficult to implement. For example, the passive approach to sliding injuries in baseball through the use of detachable bases requires individual action in replacing the bases correctly.

Active approaches, such as putting on a helmet or driving within the speed limit, require frequent, repeated action and high motivation. Active approaches often don't influence those at greatest risk, such as teenagers, who may not be motivated to take protective action frequently.

Health Promotion Approaches

Health promotion is the "combination of educational and environmental supports for actions and conditions of living conducive to health" (Green and Kreuter, 1991). Health promotion seeks to change social and environmental factors that influence injury risk behavior. Individual and community actions, fostered by education, stimulated by social and organizational change, and encouraged through public policy, legislation and enforcement, are the immediate objects of health promotion approaches to injury prevention (Sleet, Egger and Albany, 1991).

Schools have placed increasing emphasis on health promotion approaches in programs for changing diet, exercise and substance use behaviors in school-age children and youth. These same approaches must now be used to prevent injuries (Sleet, 1984). As stated by Mason and Tolsma (1984):

> Persons can hardly be expected to avoid the health risks imposed by personal choices when they do not know or understand these risks, when they lack the knowledge or skills needed to choose a healthier lifestyle, or worst of all, when they seek guidance or support from their community and it is unavailable to them.

Effective injury prevention programs in schools must incorporate passive protection where feasible (automatic guards on dangerous equipment, soft playground surfaces) and promote individual behavior change when possible (incentives for bicycle helmet use, education on safe pedestrian practices). Most injuries have both environmental and behavioral determinants, and the solution to reducing injury rests in using both approaches simultaneously.

Selecting Appropriate Strategies

There are three generally accepted strategies for injury prevention and control.

- Education/Behavior Change
- Legislation (Policy)/Enforcement
- Engineering/Technology

Strategies are often selected in combination after an analysis of the situation. Identifying strategies that may be effectively implemented over the long term and those that may be used for more immediate results is helpful. Such identification can lead to interventions designed to change school policies to create safer environments, legislative actions such as passage of more stringent regulations or enforcement of existing laws, efforts to change children's behaviors at school to reduce individual risk of injury, or fundamental changes in the design or use of products to make them safer for use at school.

The three types of strategies each target different causative factors in injury. The education/behavior change strategies primarily target changes in host or individual risk behavior. Legislation/enforcement strategies primarily target the environment through changes in laws, regulations, policy and compliance. Engineering/technology strategies primarily target the agent (vehicle or vector) of injury and reduce the amount or release of energy through changes in design.

However, the strategies do overlap and may affect more than one segment of the problem simultaneously. For example: An education/behavior change directed toward decreasing individual drinking and driving behavior may also have an effect on strengthening existing drinking/driving laws or enforcement. It may also lead to the development of better technology for testing the blood-alcohol content of drinking drivers (Geller et al., 1991). An example of the targeted use of these three types of strategies in the prevention of sports injuries at school and how these strategies may overlap is presented in Figure 4.

Since most sports injuries result from human contact, there is great potential for improving injury rates by education/behavior change strategies. Some of the means for reducing individual risk in sports include:

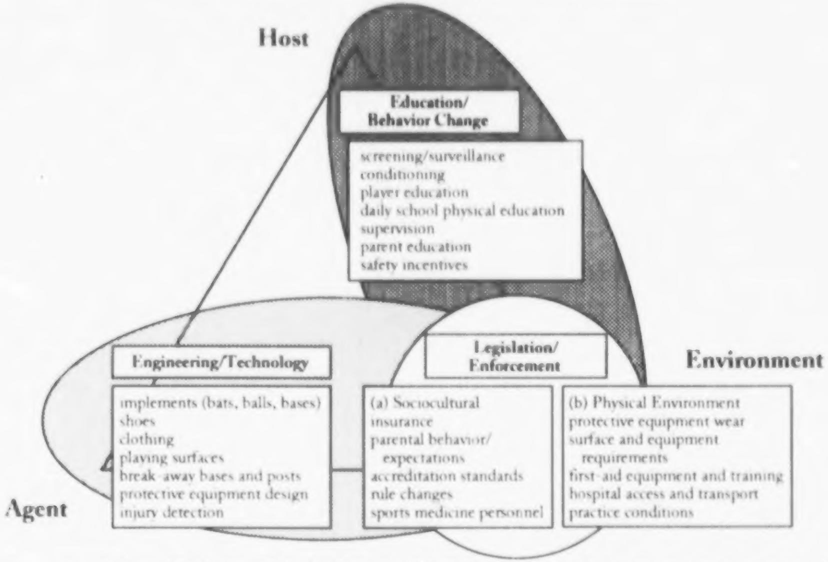
- increased screening for age/developmental appropriateness of participation
- improved individual and game supervision
- training for coaches
- player education and improved conditioning
- more effective practice sessions and competency
- parent education
- safety and injury prevention incentives and rewards

Legislation/enforcement strategies can contribute to injury reduction through changes in the environment, both the physical and the sociocultural environment. Changes in the physical environment can be encouraged by passing regulations or guidelines on the proper use of protective gear, surface and equipment requirements, enforcing rules and policies on first-aid training, emergency-care access and transport and suitable practice conditions. Changes in the sociocultural environment can be encouraged through requiring minimal insurance, mandating parental involvement, establishing minimal accreditation standards for coaches and trainers, and altering and enforcing the rules of the game to minimize injury.

Improvements in engineering/technology can affect the agents of injury and thus affect the nature and chances of injury. Protective equipment, such as mouthguards, shoulder pads, headgear, shin pads, footwear, helmets and leg padding all result from

Figure 4

Causative Factors and Interaction Between Intervention Strategies in Prevention of Sports Injuries at School


Host
Education/
Behavior Change
screening/surveillance
conditioning
player education
daily school physical education
supervision
parent education
safety incentives
Engineering/Technology
implements (bats, balls, bases)
shoes
clothing
playing surfaces
break-away bases and posts
protective equipment design
injury detection
Legislation/
Enforcement
(a) Sociocultural
insurance
parental behavior/
expectations
accreditation standards
rule changes
sports medicine personnel
(b) Physical Environment
protective equipment wear
surface and equipment
requirements
first-aid equipment and training
hospital access and transport
practice conditions
Environment
Agent

Adapted with permission from G. Egger, D. A. Sleet, J. Harrison, et al. 1993. *Injury in Australia.* Adelaide, South Australia: National Injury Surveillance Unit, Australian Institute of Health.

advances in the design and suitability of products to protect against injury. Similarly, agents of injury such as bats, balls, bases, cleats, goal posts and playing surfaces should be modified to further minimize injuries during contact.

In some cases, as with football helmets, technology has been combined with regulation and education to guarantee maximum benefit to the player. Unfortunately, helmets, while protecting the host from injury, are frequently themselves the source of injury to others. Using a multiple causation approach to prevention provides a basis for implementing interventions that address both behavioral factors and environmental conditions that predispose school-age children and youth to injuries.

The School's Role in Injury Prevention

In late 1990, the U.S. Public Health Service released *Healthy People 2000: National Health Promotion and Disease Prevention Objectives*. This document establishes a set of national objectives and goals to reduce injury in the United States, along with a set of specific actions to achieve these goals by the year 2000. One of these important health objectives is to "provide academic instruction on injury prevention and control, preferably as part of quality school health education, in at least 50 percent of public school systems (grades K through 12)" (Objective 9.18). A related health personnel objective is to "include academic instruction on injury prevention in schools that train primary and secondary school educators and recreational professionals" (U.S. Department of Health and Human Services, 1991). Clearly, these objectives will require effort and cooperation from the school, community and health care settings.

The development of school-based injury prevention programs has been slow, and few interventions have been properly evaluated. Since injury prevention has recently become a major public health issue, reexamination of the role of the schools in providing injury prevention has begun (Wojtowicz, Macrina and Bolton, 1990).

Educators see students almost every day, so are in a unique position to identify injury problems and potential solutions. An injury prevention program in the schools should be integrated with a comprehensive school health education program. As in school health, many opportunities and resources for improving injury prevention at school already exist (Nelson, 1986). These include policies and procedures, staff training, curriculum development, facilities and environment, and health services.

Policies and Procedures

Administrative rules and regulations can help keep children safe at school. School policies can promote positive behaviors conducive to injury prevention (such as wearing bicycle helmets) and restrict undesirable injury risk-taking behavior such as carrying weapons to school. Every school should develop written policies and procedures for the prevention and treatment of injuries.

School policies may cover first-aid and emergency care, record keeping, disaster preparedness, traffic control, personal protection, inservice and school security. A school policy might provide teachers with inservice time for injury prevention training or specify curriculum development and integration. It might prescribe procedures to be followed in sports/recreation programs to improve safety, prescribe specific injury prevention methods to be followed for students with special needs and handicapping conditions, or identify the hours of instruction devoted to injury prevention within the school curriculum. School injury prevention policies and procedures need to be developed, communicated and systematically followed by teachers, administrators and students.

Staff Training

Most teachers will have had little formal training in the problems of injury and injury prevention. Teachers, coaches, administrators and other staff (including bus drivers, nurses, student teachers, aides and custodial staff) must be oriented to school policies and procedures designed to prevent injuries. Teacher training may occur through workshops, preservice seminars, inservice training or formal coursework. Group-oriented curricular development and team teaching, independent study, and community education opportunities (extended studies, open university, training seminars) can also be used to improve teacher competence in injury prevention. Administrators may need to work out efficient means for more careful supervision of students at school.

In addition to helping teachers use new materials in the classroom, many of these activities will also help reduce injury potential for staff by increasing awareness and personal protective action against injury. As new school curricular developments in injury prevention emerge (such as violence prevention), teachers will require further inservice education and training.

Curriculum Development

Few comprehensive curricula exist for teaching about injury prevention. The instructional philosophy driving health education in schools should also influence the development of injury prevention modules and materials.

An injury prevention curriculum or module should be designed to reduce the frequency and severity of injuries—both at school, at home, on the road and in the community—from the early grades through high school. It should enable students to acquire new knowledge about injury risks and improve attitudes about reducing risks. It should also provide skills in personal decision making and behavioral change to modify personal and environmental risks for injury (Sleet, 1992). The curriculum may focus on specific risks, such as violence, by promoting the use of appropriate conflict resolution methods, or provide for a wide range of objectives and activities in injury control.

Elementary Curricula

One formal curriculum available to elementary teachers is *Preventing Injury: A Safety Curriculum* (ETR Associates, 1991). The curriculum is offered in four volumes, for preschool/kindergarten, grades one and two, grades three and four, and grades five and six. *Actions for Health* (ETR Associates, 1992), a comprehensive health curriculum for kindergarten through grade six, includes lessons on injury prevention at each grade level.

ETR Associates also offers *Safety Is No Accident: Children's Activities in Injury Prevention* (Kane, 1992) and an accompanying poster, *Safety Power!* for children in kindergarten through third grade. Many community groups and agencies are also good sources for school programs and materials covering a variety of injury prevention topics.

Secondary Curricula

The *Teenage Health Teaching Modules* (Education Development Center, 1991) include an injury prevention module for secondary teachers. This comprehensive instructional curriculum covers both intentional and unintentional injury prevention and includes classroom and follow-up activities for grades nine and ten.

Part of ETR Associates' Contemporary Health Series, *Entering Adulthood: Skills for Injury Prevention* (Hunter and Lloyd-Kolkin, 1991) is an injury prevention curriculum for grades nine through twelve. *Into Adolescence: Stopping Violence* (Post, 1991) is an injury prevention curriculum for middle school students, grades five through eight.

Prothrow-Stith (1987) has developed a curriculum that focuses on violence prevention among adolescents, intended to supplement the *Teenage Health Teaching Modules*. This ten-session curriculum addresses violence prevention between peers and tries to show high school students the extent to which they are at risk for homicide, and positive ways to deal with anger and aggression.

A health professionals' training package of four modules (Introduction, Firearm Injuries, Burn Injuries to Children, Falls Among the Elderly) is also available (EDC, 1990). The package includes both slides and scripts in each module.

Facilities and Environment

Injury is determined by a complex interaction between environmental and individual factors. Interventions in schools that focus only on the individual factors may be limited in effectiveness because they ignore hazards in the physical facilities and school environment. Yet merely pointing out hazards to persons responsible for school environments may be insufficient to abate the hazards (Sacks et al., 1992).

A safe school environment includes not only the physical buildings and playgrounds, but also instructional areas such as laboratories; wood, metal, auto and electrical shops; and physical education/locker facilities. One study in Italy found that 50 percent of the cases of injuries to school children in Milan occurred in the gymnasium (Pagano et al., 1987). Changing the physical environment to reduce risk of injury may include controlling or removing hazards such as wet flooring, unsafe stairs, spilled chemicals, cracked or broken glassware, inadequate lighting, poor ventilation, insufficient space and unsafe playgrounds.

Many hazards can exist in school design, such as hard surfaces, equipment at excessive heights, and equipment made from unyielding materials such as iron and cement. Supervision in playground activity and constant surveillance for playground hazards by all teachers and administrators is necessary. Many studies favor a "child-centered playground safety curriculum approach," combining developmental capabilities of children with education, skill development, and use of safe and appropriate equipment (King and Ball, 1989).

Opportunities for injury prevention may also extend to factors in the psychosocial environment. Family stress, alcohol and drug abuse, and violence create an environment where injuries are more likely (Molloy, 1987). Many studies have found a relationship between injuries and adverse sociocultural environments such as neighborhood crowding and family dysfunction, and there is a strong relationship between injuries and socioeconomic conditions such as poverty, financial problems in the home and substandard housing (Berger, 1985; Mare, 1982). Reconsidering the influence of environments at school, such as parking lots, restrooms, common grounds and hallways, may result in interventions that help curb violence at school.

Health Services

Health professionals working in schools are in a unique position to observe and record injuries and intervene in controlling them. Most schools have established procedures for at least two health services related to injuries: emergency treatment and care of injuries for both students and staff, and injury reporting and record keeping.

Emergency Treatment

Every school should have procedures for handling medical problems and emergencies, including injuries to students and staff. Medical personnel on site (school nurse or physician) usually attend to the treatment of minor injuries, but should be alert to the need for more comprehensive care in particular instances. School personnel also need to be aware of signs of child abuse and follow standard reporting procedures and referral to appropriate follow-up care.

All school personnel should be properly trained in basic first-aid procedures to manage common injuries such as cuts, nosebleeds, sprains, etc., and more advanced first-aid and CPR to manage life-threatening circumstances until more qualified help can be obtained. Some states (e.g., California) now require all teachers to be certified in CPR.

Injury Reporting

Any injury that causes a student or staff member to miss or leave school (or miss or leave work) or involves property damage should be reported on a standard injury report form. Such forms vary, but in general contain information related to the nature of the injury, part of the body injured, days lost from school or work, treatment given, witnesses, location and description of the circumstances of the injury.

Accurate injury-reporting tools and methods to identify and monitor the number and kinds of injuries at school are essential to an examination of injury trends and the identification of opportunities for intervention. A consistent injury-reporting system may also help identify particularly high-risk individuals, groups or unsafe environments at the school. Record keeping also serves an important function in cases of liability and in lawsuits. One study (Bremberg, 1989) found substantial underreporting of injuries at school when reporting was done by the school nurse. When other staff were involved in reporting injuries, a two-fold increase in the number of injuries reported was found (Wojtowicz, Macrina and Bolton, 1990).

Data should be collected on *all* injuries occurring at school, those treated by school personnel and those referred out for care. This information should become part of the official school health records.

Recommendations for Specific Injury Problems Affecting Schools

There are many areas in which schools can work to reduce injuries. Some suggestions for a variety of these areas follow.

Traffic Injuries

Traffic injuries include injuries to occupants of cars, vans, motorcycles and buses, to pedestrians, and to bicyclists. This category is the largest single source of injury deaths to children and youth. A school injury prevention program should strive to reduce specific traffic-related injuries. Efforts can be coordinated with the state department of transportation, the department of education and local public works and road departments.

Motor vehicle occupant death rates peak at ages 16 to 19, with males at higher risk. Alcohol consumption is a leading factor in traffic crashes that result in serious injuries and fatalities. Nearly 40 percent of all fatally injured drivers have sufficient alcohol in their systems to be legally intoxicated (National Highway Traffic Safety Administration, 1988).

Safety belts are 40 to 55 percent effective in reducing serious injury and death in a crash. The risk of death in a crash for an unrestrained child is 11 times that of a restrained child. While all states require child safety seat use, only about two-thirds of the states have mandatory safety belt use laws for older children, adolescents and adults. Estimates of safety belt use rates are only about 60 percent nationwide, and parents who do not use safety belts themselves are less likely to use restraints for their children

(Russell, 1993). Strong law enforcement is a key to increasing safety belt use.

Schools should require that children being dropped off at school in private vehicles be properly restrained—either by the use of a child safety seat or a safety belt. Children who are transported on school outings should be properly restrained at all times.

Pedestrians

Pedestrian injuries to children and youth are generally an urban problem. Among school-age children, pedestrian injury deaths are highest among five to nine year olds. Peaks in pedestrian injuries occur in the fall and winter. Two-thirds of fatalities occur between sunset and dawn; most occur to males and away from intersections (National Highway Traffic Safety Administration, 1988). Fatalities to older children are usually the result of "darting out" into traffic while playing (Rivara and Barber, 1985; Brison, Wicklund and Mueller, 1988) and inadequate perceptual motor development to judge speed and distance of oncoming traffic (Arnold, 1990).

Some argue that young children should not be taught how to cross the street safely, but instead should be taught *not* to cross streets without supervision (Modena et al., p. 63). Older children can be successfully taught to watch for oncoming traffic and not to dart into the street. One school education program, "Willie Whistle," demonstrated dramatic success in reducing child pedestrian injuries in the local setting (Preusser and Lund, 1988). Other ways to reduce child pedestrian injuries include (National Committee for Injury Prevention and Control, 1989):

- one-way streets
- pedestrian lights in high-risk areas
- "talking" or audio signals at pedestrian intersections
- changing bus stop locations

- use of sidewalks, roadway barriers, crossing signs and signals
- use of crossing guards and escorts for young children

Motorcycles

Motorcycle crashes kill about one hundred children each year (Modena et al., 1991). Among 15 to 34 year olds, one out of every ten traffic fatalities involves a motorcycle driver or passenger (National Highway Traffic Safety Administration, 1988). As a group, motorcyclists have a fatality rate 19 times that of car drivers. Death rates are highest between ages 18 and 24 and are ten times higher for males than females. The two factors that most affect death rates are amount of travel (exposure to hazards) and use of a protective helmet.

Helmet laws have reduced motorcyclist deaths dramatically by reducing head injuries, although only a handful of states have passed (and enforce) such laws. Experience and training appear to influence crash rates, as does increased visibility (Cercarelli et al., 1990). Motorcyclists increase their risk by ignoring road rules related to proper signaling, lane changing, speed, following distance and alcohol use. Schools can regulate the use of motorcycles on school grounds by requiring speed limits, daytime running lights, helmet use and reflective/protective clothing.

Mopeds

Mopeds and minibikes pose additional risks to young adolescents, since some licensing laws allow youth as young as age 13 to operate these vehicles on public roads (U.S. Department of Transportation, 1988). Each year, more than 13,000 children and youth are treated in emergency rooms for injuries sustained in crashes on these vehicles (Modena et al., 1991).

Vehicle instability at speeds above 25 miles per hour, coupled with young and inexperienced drivers and riders and lack of conspicuity on the road, result in a high collision probability. High speed and lack of a helmet and protective clothing increase the severity of injury in the event of a crash.

Schools can regulate the use of these vehicles on school grounds, mandate driver and rider education, require and enforce the use of helmets and protective/reflective clothing, prohibit passenger travel and consider changes in the school road environment to minimize vehicle/moped mix.

Bicycles

Preadolescent bicyclists are at highest risk for bicycle injuries. About 90 percent of bicyclist deaths result from collisions with motor vehicles, and four out of five deaths result from head injury (Modena et al., 1991). Most nonfatal injuries occur from bicycle falls. Bicycle death rates rise rapidly after age four and peak among males at age 13. The peak times for bicycle injuries are after-school hours, from 3:00 to 7:00 p.m.

Although bicycle helmets are the most effective intervention against head injuries, helmet use among children and youth remains low. Howard County in Maryland became the first U. S. jurisdiction to mandate use of helmets by cyclists under 16 years of age (Scheidt, Wilson and Stern, 1992). Australian studies clearly show the effectiveness of locally organized helmet incentive and rebate programs (Bikewest, 1990) and statewide bicycle helmet legislation (Centers for Disease Control and Prevention, 1993a.).

Schools can require helmet use by children who ride bikes to school, initiate regular bicycle safety checks, organize a bicycle helmet rebate scheme (some schools in Australia purchased helmets at cost and provided them at a discount to parents and students), and initiate school and community bike education programs. These activities will increase community acceptance of safe bicycle travel and encourage community action for more effective mandatory legislation.

Bicycle paths and lanes on roads in and around school can reduce the potential for collisions with vehicles. Reflective clothing, helmets, and lights and reflectors (on the bicycle or on the rider) should be encouraged. Changes in the roadway, such as barriers separating bicyclists from traffic and ensuring safe cycling surfaces, will help reduce collisions.

Children should not be encouraged to ride a bike before they are developmentally ready (both physically and perceptually). Children should be taught traffic rules, be provided with bicycle riding training and testing, and use only bikes with safety features such as chain guards, spoke covers, safe handlebars, effective brakes, reflectors and lights. The bicycle should be the right size for the child. Bikes that are too big for the child are most dangerous.

School Buses

Each school day, about 22 million children are transported more than 18 million miles in school buses, yet school bus passenger fatalities are remarkably low—fewer than twenty children per year. Most school bus fatalities occur to pedestrians or students who are getting on or off the bus or as they cross the street in front of a bus (Insurance Institute for Highway Safety, 1985).

Schools can help improve passenger safety by taking an active part in monitoring driver fitness, passenger behavior and vehicle safety, as well as periodically reviewing policies and procedures for school bus use. Increasing the safety of school bus travel, the focus of a National Academy of Sciences study (Transportation Research Board, 1989), includes the following strategies:

- installing and using swing-out stop arms and strobe lights on the bus to prevent drivers from passing stopped school buses
- use of escorts for children exiting the bus and crossing the street
- school bus driver training

- route and stopping location reviews to minimize risk to children
- speed limit posting
- safe loading/unloading zones at school

Recreation/Sports Injuries

The risks of injury from recreational activities and sports is greatest during adolescence. For the 13 to 19 year old, sports are the most frequent cause of nonfatal injuries requiring medical treatment among both males and females. A Massachusetts study of childhood injuries found that one in every fourteen adolescents will be seen in an emergency room or be hospitalized for a sports-related injury every year (Guyer and Gallagher, 1988).

Although the majority of injuries are minor, twice as many males as females are injured in sports and recreational activities. Injury rates vary markedly between sports, as illustrated in Figure 5.

Football is especially hazardous to boys. The National Athletic Trainers' Association found that 37 percent of all high school football players were injured at least once during 1987. The highest sports injury rates for secondary school girls occurs in basketball, the woman's sport with the most contact (National Committee for Injury Prevention and Control, 1989).

Trauma to the face, head, eyes and mouth account for the largest proportion of sports injuries. Mouth protectors and face guards have greatly reduced these injuries in football, but are not required in baseball and ice hockey, where injuries to the face and mouth are also frequent (McGinnis and Degraw, 1991).

While injuries from team sports are more frequent, injuries resulting from recreation and individual sports are more severe. "Track and field, bicycling, horseback riding and ice skating entail higher risks for head injuries than contact team sports such as football" (Children's Safety Network, 1991).

Figure 5

Sports Injury Rates per 100,000 Participants

Sport	Rate per 100,000 Participants
football	2171
ice hockey	2089
baseball	2089
basketball	1858
soccer	910
bicycling	905
skate boarding	878
horseback riding	465
volleyball	370
roller skating	349
ice skating	335
water skiing	199
racquetball	168
tennis	118
golf	104
swimming	93
archery	66

Adapted with permission from the C. V. Mosby Company, a subsidiary of Times Mirror. W. H. Creswell and I. M. Newman. 1993. *School Health Practice*. 10th ed. St. Louis, MO: Times Mirror/Mosby.

It is estimated that about 54 percent of sports injuries are due to physical contact, 30 percent to terrain and surfaces and 15 percent to equipment hazards. Prevention of sports injuries is a major element in coaching, training and sports medicine practice. Major preventive initiatives include:

- increasing the number and quality of trained coaches
- educating students to avoid sports injuries
- changing the environment to reduce hazards (e.g., break-away baseball bases to prevent sliding injuries)
- the use of protective clothing and padding

- rule changes
- improved maintenance of playing fields
- improved response and quality of after-injury care

Schools with recreational and sports programs can do much to reduce the incidence of injuries. One important requirement is the mandatory use of appropriate protective gear. Although mouth guards are mandatory for high school football, few organized leagues and intramural sports require protective gear.

School policies requiring accurate reporting of sports and recreational injuries are essential to prevention. Well-organized and supervised recreation and sports programs are also necessary, as are trained personnel, enforcement of rules and regulations and safe equipment.

The school environment can also be modified to reduce injuries. For example, injuries from sliding into fixed-post bases in baseball (costing an average of $1,223 per sliding injury) could be reduced by 95 percent through the use of break-away bases, which cost about $48 per base to install (Robertson, 1990). Other environmental hazards such as exposed sprinklers, potholes, broken glass, dangerous playing surfaces and inadequately fenced playing fields often contribute to playground injuries. Modifications in rules or requirements for special footwear in certain activities (as in indoor aerobic dance training) to accommodate different playing surfaces and environments are also actions the school can take.

Suicide

Suicide among young people ages 15 to 24 has increased nearly 300 percent over the past thirty years, with the major increase occurring among youth ages 15 to 19. Suicide is the second leading cause of death in this age group and the eighth leading cause of death in the United States overall. Approximately 30,000

Americans commit suicide each year. Although the rate for male adolescents is comparatively low, there has been a steady increase in suicide among all youth ages 15 to 19 since the mid-1950s (U.S. Department of Health and Human Services, 1991). Reports of suicide-like behavior (thoughts or actions) have been documented among children as young as age three (Trad, 1990).

In addition to completed suicides, attempted suicide is also a serious problem among adolescents. It is estimated that for every completed suicide, there are twenty suicide attempts among young people ages 15 to 19 (Alcohol, Drug Abuse and Mental Health Administration, 1989). In several surveys of adolescents in the general population, as many as 10 percent reported having attempted suicide at least once (U.S. Department of Health and Human Services, 1990). Students whose suicide attempts resulted in medical injuries are at higher risk of repeated (and completed) suicide attempts in the future.

Studies of suicidal behavior (defined as thoughts or actions that might lead to self-inflicted death or serious injury) among school children indicate that rates are increasing. The studies indicate that suicidal behavior is infrequent among elementary school children (12 percent) but increases progressively among junior high (35 percent), high school (65 percent) and college students (50-65 percent). Actual attempts ranged from a low of 3 percent for elementary school students to 11 percent for high school students and 15 to 18 percent for college students (Garrison, 1989). The most commonly identified correlates include depressive symptoms, social and personal problems, family disorganization and life stress.

School teachers, administrators and other personnel working with adolescents should be trained to recognize the warning signs of suicide and take appropriate actions (Cole and Siegel, 1987). Some professionals recommend the use of schoolwide screening instruments for signs of suicidal behaviors (Reynolds, 1991). Some of the warning signs school personnel may be able to recognize include:

- previous suicide attempts
- suicide threats or statements about a desire to die
- depression
- sudden changes in behavior
- substance use
- loss of a parent or loved one
- child abuse
- runaway behavior

Schools should give special attention to children and youth who have attempted suicide or who were close friends with suicide victims. School counseling programs can be developed to assist children and adolescents to manage grief and stress more appropriately and to help in cases of personal crisis. Some school curricula are available to help students understand more about suicide, increase awareness of depression, and improve coping skills and personal resources (California Department of Education, 1987; Burton, 1990). However, more evaluation research on these programs is needed to determine their impact.

Schools need to review and adopt specific guidelines for crisis management in cases of student suicide to prevent "suicide clusters" at school and to help manage the publicity and media attention (Centers for Disease Control and Prevention, 1988). School administrators should work closely with mental health professionals in the community to coordinate services and referrals. Resources exist in every community, through public health departments, social service agencies and mental health centers, to assist schools in managing this growing problem.

Schools should also do what they can to control the possession of lethal means for suicide at school, such as carrying a firearm. Firearms are both the most common and most lethal methods used in suicide and homicide.

In 1992, the Centers for Disease Control and Prevention reviewed the rationale and evidence for the effectiveness of various suicide prevention strategies. CDC made the following recommendations, which may be relevant for school-based programs:

- Ensure that new and existing suicide prevention programs are linked as closely as possible with professional mental health resources in the community. Many strategies are designed to increase referrals of at-risk youth; this approach can be successful only to the extent that there are appropriate, trained counselors to whom referrals can be made.
- Avoid reliance on any one prevention strategy. Most good programs incorporate several strategies at once.
- Incorporate promising but underused strategies with current programs where possible. The restriction of lethal means by which to commit suicide may be the most important candidate strategy here. Peer support groups for those who have felt suicidal or have attempted suicide also appear promising.
- Expand suicide prevention efforts for young adults ages 20 to 24, among whom the suicide rate is twice as high as for adolescents.
- Incorporate evaluation efforts into all new and existing suicide prevention programs, preferably efforts based on measures such as the incidence of suicidal behavior or ideation. Be aware that suicide prevention efforts, like all health interventions, may have unforeseen negative consequences. Evaluation measures should be designed to identify such consequences, should they occur.

Interpersonal Violence

Each year, more than 20,000 people die and more than 2 million are victims of interpersonal violence in the United States. Homicide and assault are an especially important public health problem among school-age adolescents and young adults. Since 1984, the homicide rate among adolescents 15 to 19 years old has risen 53 percent, and among young people ages 15 to 24, homicide is the second most common cause of death (Roper, 1991). Homicide is the most common cause of death for both African-American females and African-American males ages 15 to 34 (Hammett et al., 1992). Nearly two-thirds of homicide victims are killed with firearms, and 75 percent of these victims are killed with a handgun.

The United States ranks first among industrialized countries in violent death rates. Some have called firearm deaths "a uniquely American epidemic." In the United States, gun deaths occur at a rate more than 90 times greater than in any other country (Rice, MacKenzie and Associates, 1989). During 1986 and 1987, a two-year period, the number of people who died from firearm injuries in the United States was even greater than the number of U.S. casualties during the entire Vietnam War (Kellerman et al., 1991).

Violence is frequently the first response for many adolescents in cases of emotional and mental stress. It is often used as a mechanism for coping with conflict. More than ever, the problems of violence are penetrating the schools—gang recruitment and activity, weapon carrying, and in-school and after-school altercations and fighting behavior. Among the instruments of violent death, firearms and knives rank ahead of all other means.

One-half million assaults are believed to occur on school campuses every year. According to a 1987 school survey, 135,000 boys carry a handgun to school daily in the United States (Calhoun, 1991). Among eighth and tenth graders, almost 7 percent of boys and 2 percent of girls reported carrying knives to school nearly every day (ASHA, AAHE and SOPHE, 1989).

It is estimated that more than 2,000 students and forty teachers are physically attacked on school grounds *each school hour.* Another 900 teachers are threatened (National Education Association, 1993). In 1990, school buildings were the site of 5.3 percent of all nonfatal violent victimizations of persons ages 12 and older. Another 4.5 percent of such assaults occurred on school property (Bureau of Justice Statistics, 1992).

Violence rates in secondary schools are highest in school districts marked by higher crime rates and more street gangs (National Research Council, 1993). A victimization survey by the National Institute of Education (1978) reported higher rates of student violence in schools in which students perceive signs of ineffective social control, such as undisciplined classrooms, lax enforcement of school rules and a weak principal. It is not clear whether lack of school control gives permission that encourages violent behavior or whether high violence levels in the school create fear among administrators and teachers that undermines discipline.

There is evidence that violence levels are related to students' attachments to the values schools seek to promote. In secondary schools, violence rates increased with the percentages of students who did not aspire to good grades, who did not view their curricula as relevant, and who did not believe that their school experience could positively influence their lives (National Research Council, 1993).

Youth gangs are another important problem for schools. Youth gangs exist in nearly every state and in small towns as well as large urban centers (Lazaroff, 1992). Gang activity increases in communities with little social organization, few jobs, poor schools, high poverty and high substance use rates. Schools can help by offering early intervention programs, including after-school activities, drug prevention programs and expanded social opportunities (School Social Services Administration, 1990).

Much remains to be learned about effective means of reducing violence at school, at home and in the community (Mercy and Fenley, 1991). There are large gaps in our understanding of the causes and best preventive strategies for violence in schools and communities, since the underlying causes of violence tend to vary from community to community (Prothrow-Stith and Weissman, 1991). Each school must assess its own needs and adopt a framework for violence prevention that addresses those needs. Schools can take important steps, however, in their efforts to reduce or discourage violence.

Many schools use conflict resolution skill training to help students manage their anger and hostile feelings in nonviolent ways. Some of these strategies include planning ahead and having a strategy for conflict, setting the right tone for discussion, using good communication skills and working toward compromise and acceptable solutions without violence (Hunter and Lloyd-Kolkin, 1991). Other schools train students in teams to mediate arguments before they escalate into fights.

Curricula have been developed for various grade levels that seek to change attitudes toward violence and improve interpersonal skills as ways to curb violence, such as ETR Associates' *Into Adolescence: Stopping Violence*, a curriculum for students in grades five through eight (Post, 1991). Violence curricula that focus on developing peer mediation and conflict resolution skills are most widespread in schools but need further evaluation (Prothrow-Stith, 1989; Selman and Glidden, 1987).

The recent work of the Virginia Association of School Superintendents (1992) and the National Education Association (NEA, 1993; NEA, n.d.) provides encouraging signs that schools are taking an active part in violence prevention and control. Helping adolescents deal with anger in productive, nonviolent ways is one step toward diffusing the enormous injury burden resulting from the increasing incidence of violence in society. National health objectives for the year 2000 include specific violence prevention objectives, many of which cannot be fully met without the help of schools (Iverson and Kolbe, 1983).

While studies of the effectiveness of various curricula in reducing violent and abusive behavior are inconclusive, there is some evidence that they can help improve social problem-solving abilities in adolescents (Guerra and Slaby, 1990). One program in Hawaii trained students in a two-day course to mediate conflicts. In one school, 135 disputes were mediated by students, and 104 agreements were reached. In another school, the number of fights dropped from 83 to 19 during the first two years of the program (Mason, 1993).

Modifying the school environment also has promise as a violence prevention strategy. Barring weapons from school grounds and enforcing the Gun-Free School Zone Act of 1990, which makes it a federal crime to bring firearms onto school property (U.S. Code of Federal Regulations, 1991), are helpful steps schools can take. It is estimated that one-fourth of major urban school districts now use metal detectors. Other schools are employing school security personnel and school surveillance methods to "disarm" potential violence at school.

Spatial characteristics of schools can influence the probability of violence by increasing crowding and opportunities for confrontations. Implementing architectural and social planning principles can create a safer school environment. The impersonality of school routines, conformity and school failure may contribute to feelings of anger, frustration and resentment that may predispose students to violence. Poorly designed school grounds and space may also facilitate crime and violence. These features of school life may be open to possible, as yet untried, interventions.

A multifaceted community-based approach to violence prevention among youth is recommended in the CDC document *Prevention of Youth Violence: A Framework for Community Action* (1993b). This document identifies many promising approaches to preventing youth violence in the community, including educational strategies, legal and regulatory change, and environmental modifications. Many of the recommended strategies are relevant to schools but need to be properly evaluated for their effectiveness.

The recommended education strategies include:

- adult mentoring
- early childhood education
- social-skills training
- peer education
- parenting education
- conflict resolution

Legal and regulatory changes relate to limiting the access to and carrying of weapons and controlling the use of and access to alcohol and other drugs. Environmental changes relate to the social, work, recreational, academic and physical environments.

In one of the most comprehensive approaches to preventing school violence produced by a school system, the Virginia Association of School Superintendents (1992) held a Summit on School Violence, attended by leaders of seven educational organizations. The summit produced a set of recommendations directed at all levels, from the home, school and community to legislators. They include:

- outreach programs to the homes of disruptive youths
- emergency communications systems in the schools
- development of strong and consistent discipline policies

- policies blocking expelled students from reenrolling in neighboring schools
- gun control legislation
- expanded access for at-risk students to early intervention efforts (such as Head Start and Chapter 1) known to improve school success

Schools and communities are close partners in the Virginia plan for resolving the problem of school violence. What has begun in Virginia may be a useful model for progress in other states. In fact, all injury prevention efforts need partnerships. While educators have an important role to play in injury prevention, other facets of society—parents and other family members, community members and government at all levels—must contribute to the solutions.

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Chapter 18

Physical Fitness: A Vital Component for Total Health and High-Level Wellness

Richard L. Papenfuss, PhD

The benefits of physical fitness have become increasingly clear during the past few years. The literature reveals not only the benefits of physical fitness, but how they may be achieved.

> There is now little doubt that regular physical activity of the appropriate frequency, intensity, and duration produces significant health benefits. Most important is the achievement of those specific fitness components which help reduce the risk of hypokinetic conditions including heart disease, back pain, diabetes, osteoporosis, and obesity. (Corbin, 1987)

Physical fitness is an important component in the total health and wellness of children and adults. Physical health and wellness is as important as social, emotional, intellectual and spiritual health. The effective balance of these five dimensions contributes to total health and high-level wellness.

Figure 1 illustrates the five dimensions of total health. The five dimensions represent the spokes of a wheel. When the spokes are of equal length, the wheel turns smoothly (life is balanced). However, when one dimension is extended or reduced in length, the wheel becomes unbalanced and all other dimensions are affected (life becomes difficult).

The physical dimension seeks its own balance in such healthy behaviors as proper diet, stress management, adequate rest and regular exercise. This type of physical fitness contributes to overall

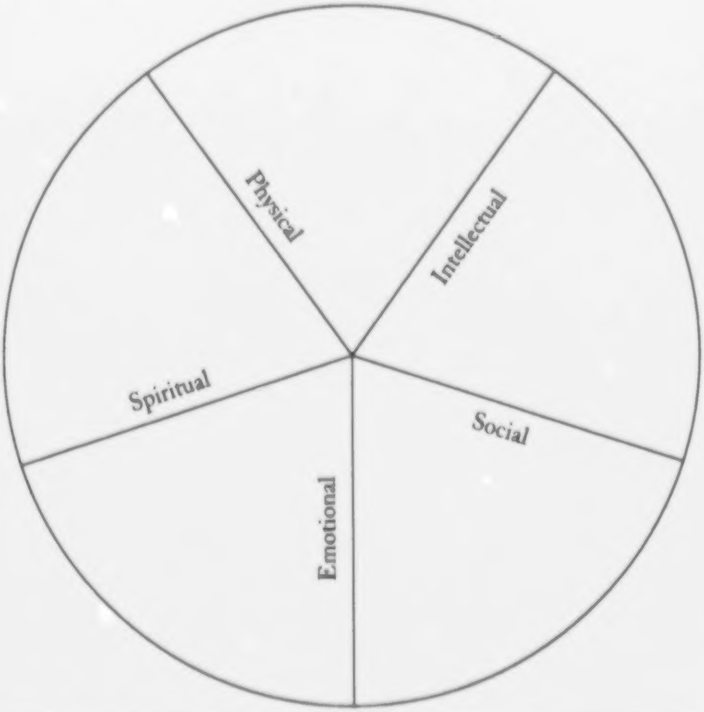
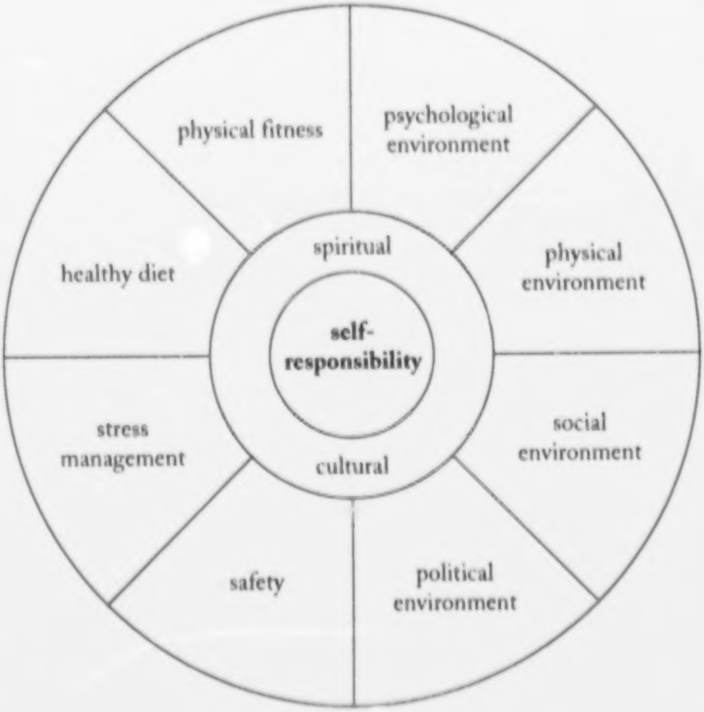


Figure 1
Whole Person Wheel

balance for total health and high-level wellness.

Physical fitness is but one of several important components that comprise the health and wellness of individuals. Ardell, in his book *Planning for Wellness,* suggested that high-level wellness has several components. His model for wellness has been expanded to include a myriad of factors that contribute to high-level wellness. Figure 2 depicts this Wellness Model.

Figure 2
Wellness Model


physical fitness
psychological environment
healthy diet
spiritual
physical environment
self-responsibility
stress management
cultural
social environment
safety
political environment

Based on adaptations of Donald Ardell's Wellness Model by Norton Kalishman, MD, and Richard L. Papenfuss.

The Wellness Model focuses on the need for individuals to assume "self-responsibility" for their own wellness. It also suggests that several external factors must be addressed in order to achieve high-level wellness.

Why Is Physical Fitness Important?

Health in the physical dimension is derived from positive lifestyle behaviors related to diet, stress management, relaxation, sleep, the avoidance of tobacco, responsible alcohol use, and so on. Regular exercise is a major contributor to physical health, because of the synergistic effect that it has on other behaviors related to fitness. Regular exercise has the following benefits:

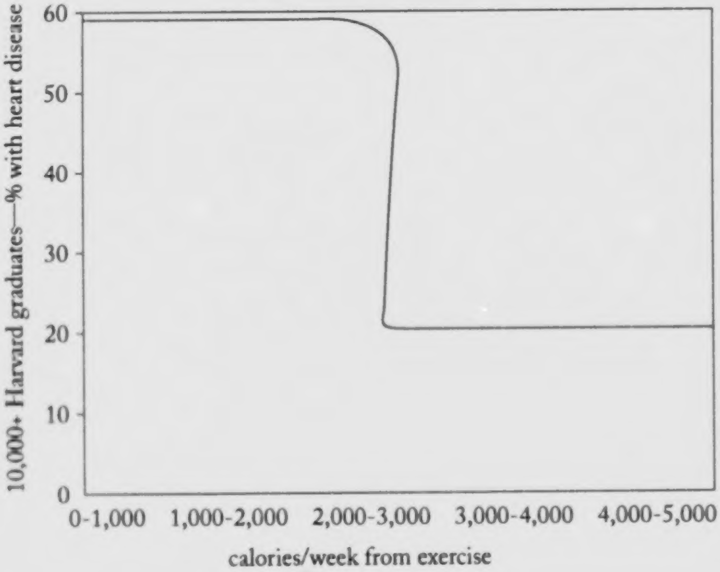
- has a positive influence on weight control
- aids in stress management and relaxation
- often serves as an alternative to the use of tobacco, alcohol and other drugs
- improves energy level
- helps improve strength, flexibility and endurance

Through regular exercise, individuals are able to accomplish many of the outcomes necessary to success in the physical dimension. Similar attention should be given to the social, emotional, intellectual and spiritual dimensions to accomplish total health and high-level wellness.

Regular exercise has been proven to be an effective means of reducing coronary artery disease, the number one risk factor for premature death among adults in our society. Research has shown that people who exercise at a level that burns a minimum of 2,000 to 3,000 calories per week have nearly a 40 percent decrease in coronary artery disease (Paffenbarger and Hyde, 1984). Figure 3 illustrates the results of this research.

When individuals walk, they tend to burn approximately six to eight calories per minute; when they jog, they burn eight to ten calories per minute. Therefore, someone who implements a walking program of fifty minutes per day, six days per week, would be exercising for three hundred minutes. If this individual burned seven calories per minute, she or he would burn a total of 2,100 calories for the week, which is within the desirable calorie consumption range of 2,000 to 3,000 calories per week.

Figure 3
Paffenbarger Study



Source: R. S. Paffenbarger, Jr., and R. T. Hyde. 1984. Exercise in the Prevention of Coronary Artery Disease. *Preventive Medicine* 13:3-22. Reprinted with permission.

Other exercise schedules may be implemented, depending on time available and interests. The encouraging message in Paffenbarger's work is that we do not have to be marathon runners to obtain the positive benefits of exercise in reducing coronary artery disease.

The American Heart Association has identified the following ten risk factors for heart disease:

1. age
2. sex
3. heredity
4. lack of exercise
5. elevated cholesterol
6. high blood pressure
7. smoking
8. stress and tension
9. diabetes
10. overweight and obesity

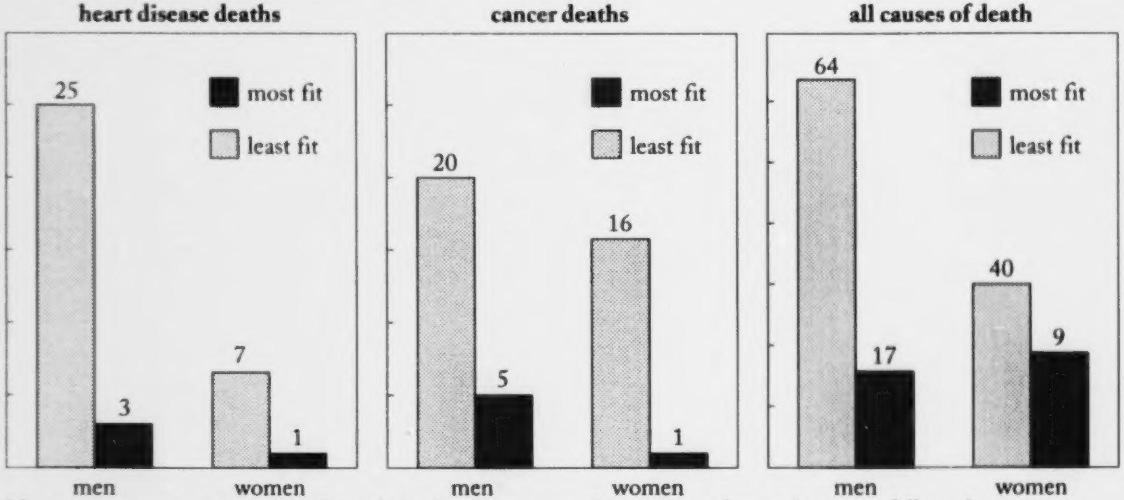
The first three risk factors (age, sex and heredity) have been called the "uncontrollables." The other seven risk factors can be controlled. The effects of exercise positively influence six of the remaining seven (all except smoking).

Research by the Institute for Aerobic Research also supports the case for regular exercise in the reduction of cancer, the number-two risk factor for American adults. An eight-year study of approximately 13,000 people showed that physical activity reduces the risk of death from virtually all causes, but especially from heart disease and cancer (Blair et al., 1989). Figure 4 illustrates the results of this research. Regular exercise has the potential to dramatically reduce the risk of heart disease, cancer and other causes of death in both men and women.

Figure 4

Exercise and Health

An eight year study of 13,000 people shows that physical activity reduces the risk of death from virtually all causes. Charts compare death rates per 10,000 person years.*



*A person year equals number of people in the group times the number of years they were followed.

Adapted from S. N. Blair et al. 1989. Physical Fitness and All-Cause Mortality: A Prospective Study of Healthy Men and Women. *Journal of the American Medical Association* 262 (17): 2395-2401. ©1989 American Medical Association.

Physical Education, Fitness and the Schools

Physical education, as a discipline, perceives its role in many ways. Programs are often based on varying objectives that include such directions as skill development, health-related fitness, lifetime sports and athletics. Inherent in all of these directions is the fact that children have the right to physical fitness. Most educators feel that it is the responsibility of the schools to provide the proper learning environment and instructional quality to allow children to maximize their potential for physical fitness.

Unfortunately, too few children in today's society are experiencing the health benefits of physical fitness. Most of today's children are not as fit as the children of twenty years ago. Only one-half of all children are participating in levels of exercise that would contribute to the development of a healthy cardiovascular system (Ross and Gilbert, 1985).

Overweight and obesity are problematic in children, too. Today's generation of children weighs more and has more body fat than previous generations, while obesity has increased an alarming 54 percent in children ages six to eleven (Bar-Or, 1987). A high level of body fat places one at greater risk for hypertension, accidents, heart disease, and psychological stressors that often accompany obesity.

It is estimated that only one out of three children participates in a regular, organized physical education program. Many of those who do participate spend as little as one hour per week in an organized physical education lesson (Pangrazi and Dauer, 1992). Recent research indicates that inactivity is an even bigger contributor to childhood obesity than calorie intake (Ikeda and Naworski, 1992). The amount of time that children watch television far exceeds their time in physical activity. If this trend continues, the future of American's children is destined to include those health problems related to sedentary living—hypertension, obesity, heart disease, strokes and cancer, to name several (Blair et al., 1989).

National Objectives for Physical Activity and Fitness

The United States has identified specific objectives for physical activity and fitness in *Healthy People 2000: National Health Promotion and Disease Prevention Objectives* (U.S. Department of Health and Human Services, 1991).

A summary list of objectives related to physical activity and fitness follows:

- Reduce coronary artery disease deaths to no more than 100 per 100,000 people (Objective 1.1).
- Reduce overweight to a prevalence of no more than 20 percent among people age 20 and older and no more than 15 percent among adolescents ages 12 to 19 (Objective 1.2).
- Increase to at least 30 percent the proportion of people age 6 and older who engage regularly, preferably daily, in light to moderate physical activity for at least thirty minutes per day (Objective 1.3).
- Increase to at least 20 percent the proportion of people age 18 and older and to at least 75 percent the proportion of children and adolescents ages 6 to 17 who engage in vigorous physical activity that promotes the development and maintenance of cardiorespiratory fitness three or more days per week for twenty or more minutes per occasion (Objective 1.4).
- Reduce to no more than 15 percent the proportion of people age 6 and older who engage in no leisure-time activity (Objective 1.5).
- Increase to at least 40 percent the proportion of people age 6 and older who regularly perform physical activities that enhance and maintain muscular strength, muscular endurance and flexibility (Objective 1.6).

- Increase to at least 50 percent the proportion of overweight people age 12 and older who have adopted sound dietary practices combined with regular physical activity to attain an appropriate body weight (Objective 1.7).

These objectives provide an excellent foundation upon which to develop a comprehensive school health promotion program, which would include:

- physical education
- health education
- home economics/nutrition
- biology
- social sciences
- school food service/cafeteria
- nursing
- counseling

Components of a Physical Fitness Program

Most experts agree on the components necessary for a successful physical fitness program. The American Alliance for Health, Physical Education, Recreation and Dance (AAHPERD) designed assessment strategies utilized in the measurement of each of the components during physical education classes. The common components follow (Pangrazi and Dauer, 1992):

Cardiovascular Fitness. The goal in this component is to develop the heart, blood and respiratory system in order to increase cardiovascular capabilities while simultaneously reducing the risks of morbidity and mortality. Aerobic activities, those requiring the heart to deliver a continuous supply of oxygen to the cells, are necessary for the achievement of a "training effect" on the cardiovascular system. Activities such as walking, jogging, biking, swimming, dance aerobics, basketball, soccer, rope jumping, and cross-country skiing are examples of aerobic activity.

Body Composition. Body composition is an important part of physical fitness. Body composition refers to the amount of body fat an individual has in proportion to lean body mass. It can be determined by several different types of measurement. The most common method of measurement features the use of a skinfold caliper. A series of measurements are applied to a formula that calculates body composition. Achieving a healthy level of body composition is significant in maximizing one's potential for wellness. It is also vital to the reduction of risk factors related to accidents and chronic diseases.

Flexibility. Flexibility contributes to overall physical fitness because it improves the range of movement in which a single joint or series of joints is able to move. This range of movement is important to fitness because it reduces the frequency of injury in exercise and sport, usually improves posture, and may decrease problems with low-back pain.

The recommended type of stretching is static, controlled activity (as opposed to ballistic stretching that uses bouncing movements). Static stretching is safer and less likely to cause injury. It encourages one to slowly stretch the muscles, tendons and ligaments to a point of discomfort, then ease off and hold the stretch for a period of time. Static stretching is recommended both as a warmup in preparation for strenuous activity and for a cool-down following vigorous exercise. Cool-down stretching is extremely helpful in reducing muscle stiffness and soreness from exercise.

Muscular Strength and Endurance. Muscular strength is the ability of a muscle to exert force; muscular endurance is the ability to exert that force over a period of time. To achieve adequate levels of physical fitness, a person must be capable of muscular strength to fulfill the skills necessary for an activity. Muscular endurance is necessary for the activity to be repeated over and over again so improved fitness can occur.

To improve muscular strength, the muscle must be moved while under resistance. To improve muscular endurance, the muscle must be moved repeatedly while under a low-level work load. It is recommended that individuals participate in regular exercise sessions three to four times per week as a means of increasing muscular strength and endurance.

In summary, to achieve a healthy level of physical fitness, emphasis should be placed upon each of the four vital components of fitness: (1) cardiovascular fitness, (2) body composition, (3) flexibility, and (4) muscular strength and endurance.

Student-Based Physical Fitness Programs

Because our students are so unfit, new strategies must be developed to reach this target audience. History seems to indicate that physical education programs alone cannot accomplish the national physical fitness goals established by *Healthy People 2000*. What can we do to improve the health of our children?

Form a physical fitness advisory group consisting of members from the school and community. Membership should be broad-based, including physicians, nurses, clergy, exercise scientists, parents, students, teachers, administrators, etc.

Conduct a study of the existing school policies as they pertain to student physical education requirements. Seek to support school policies that will allow physical fitness opportunities for all students at least three times per week.

Analyze the current physical education curriculum to determine if instruction is designed to achieve healthy levels of physical fitness for all children. Try to positively influence curricula that place a high priority on sports to include a greater emphasis on health-related fitness assessment and supportive activities.

Obtain interdisciplinary support for physical fitness and total health. Encourage disciplines other than physical education to teach toward the building of knowledge, attitudes, skills and behaviors that enhance physical fitness. Use *Healthy People 2000* as a foundation for your objectives.

Network with the community to develop broad-based support for physical fitness objectives within and outside the school. Plan assignments that will encourage students and parents to participate together in fitness activities and assist the community in designing fitness events that will attract wide participation.

Develop reinforcement strategies for those who are achieving personal physical fitness goals. Identify a system that will allow for verbal compliments, written commendations and/or specific awards to those who are accomplishing their physical fitness objectives.

Comprehensive School Health Promotion and Physical Fitness

The responsibility for physical fitness within the total person concept and the wellness model is far too encompassing for any one discipline. Traditionally, physical fitness goals were identified as the sole responsibility of physical education. Today, however, health promotion advocates in North America are recommending an interdisciplinary approach to fitness and the total health of the individual and the community. This comprehensive school health promotion model is still in its developmental stages, but momentum is gathering for the acceptance and integration of this model in numerous school and community settings.

In essence, the school health promotion model suggests that if the health of the school (organization) is to improve significantly a comprehensive approach to health promotion is necessary. This comprehensive approach should not be limited to health education and physical education, but should include home economics, psychology, biology, social sciences and other interested disciplines. It should also incorporate student services and service personnel such as nursing, counseling, administration, food service, bus drivers and custodians. In this process, health promotion becomes integrated within the entire school setting for the benefit of students, teachers, administrators and all other school personnel.

School health educators can play an important role in the promotion of fitness within the school and community settings. Health educators should support all the goals and objectives of *Healthy People 2000*, especially those related to physical fitness, because of the contributions fitness makes toward total health. There are many ways in which school health education may contribute:

- Health educators should be positive role models for students, staff and the community by exemplifying healthy lifestyles, including behaviors related to physical fitness.
- Whenever possible, collegial support should be provided to those who are aspiring to promote physical fitness with the school and community environments.
- The health educator should assist those responsible for curriculum development of physical education to support the goals and objectives of *Healthy People 2000*.
- The school health education program should lend support for physical fitness by planning teaching strategies that reinforce the goals and objectives of physical education's health-related fitness component.
- The school health education program should seek ways to reinforce positive health behaviors of students, staff and the community—especially those behaviors related to improved physical fitness.

- Health educators should seek ways to involve parents and children in the mutual attainment of physical fitness goals and objectives both at home and in the school.
- Community networking should be pursued by the health educator so that opportunities for health-related fitness may be enhanced for children and adults.
- Health educators should assist in the development of special projects designed within the school and community to promote physical fitness activities for children and adults.
- School health educators should be willing to provide leadership in the development of health promotion programs for employees within the school setting.

The challenge for school health educators seems never-ending. But to significantly improve the health of people in our schools and communities, all avenues must be considered.

Health Promotion for School Employees

Traditional thinking in physical fitness has been skewed toward the importance of fitness for students. Recent developments have been more sensitive to the benefits of physical fitness for teachers and all other school personnel. School health promotion can be designed for both school employees and students within the school environment.

The success stories offered here provide evidence to support the concept of school health promotion. These examples are just the beginning of a movement that has the potential to spread across the schools of our nation.

Oregon's Seaside Conference

The Oregon Department of Education, under the leadership of Len Tritsch, developed an annual summer conference in school health promotion. Now in its fifteenth year, the conference attracts more than a thousand school and community leaders to a week-long Seaside Conference. Conference participants are asked to develop a plan of action that they will be able to implement in their respective school and community settings.

This approach has met with so much success that the National Association of School Administrators has financially supported the diffusion of this model throughout other states in the United States. The Seaside Conference has created a ripple effect across the nation. It is increasing the opportunities for schools and communities to become involved in comprehensive school health promotion at the local levels.

Dallas Independent School District

The Dallas Independent School District initiated one of the first attempts in school-based health promotion designed to evaluate the cost-effectiveness of their efforts. The Dallas school health promotion project provided opportunities for school personnel to participate in an employee wellness program that featured such components as exercise, stress management, smoking cessation and weight control. A comparison of absenteeism rates of those who participated with those who didn't indicated that the participants were absent 2.5 fewer days. Because the district had to hire substitute teachers for absent teachers, the savings were significant enough (nearly $500,000) to offset the cost of the school health promotion program (Blair et al., 1984).

Albuquerque Public Schools

In a dissertation study conducted by Beier (1984), the results of a school-based health promotion program showed that teacher and staff absenteeism and self-concept could be significantly improved. Teachers and staff who participated in a regular wellness program offered at the school decreased their absenteeism by two days. The cost savings on substitute teachers more than offset the cost of the health promotion program.

Why Health Promotion in the Schools?

There are several important reasons for health promotion in the schools. Schools collectively represent one of the largest employee groups in the United States. The problems encountered by school employees parallel those problems of any large corporation. As Mark Tager, MD, stated (1985):

> Chances are, your school district is not unlike the national average:
> - One in six of your employees has hypertension;
> - One in ten has problems with alcohol or drugs;
> - Half are obese;
> - Almost a quarter of your male employees will die of cardiovascular disease before age 65.

Given these lifestyle conditions for illness and premature death, it is easy to understand why schools are a necessary focal point for health promotion and wellness.

The economic factors surrounding these conditions also provide an excellent rationale. School districts, like business and industry, have been experiencing escalating costs for employee health insurance coverage. Health insurance rates have sometimes increased by 25 percent or more from one year to the next. Health care costs have been steadily increasing for the past two decades to a point where the United States in now spending more than $600 billion per year on health care costs. This represents about 11 percent of our Gross National Product (GNP). The health care budget is second only to our national defense budget in total dollars spent.

The major costs for health care from illness or disability seem to be related to heart disease, hypertension and low-back pain. Similarly, the major cause of illness and death in the United States continues to be coronary heart disease. The American Heart Association states that cardiovascular disease accounts for more than $64 billion of our annual medical costs. And, yet, when we examine the risk factors of heart disease, it is easy to see that many of the risk factors can be controlled through physical fitness.

The research also supports the conclusion that a successful health promotion program can positively affect absenteeism, disability, job turnover, productivity and morale. Each of these benefits saves money for the employer. Thus, the question is not "Should we start a health promotion program?" but rather, "How do we get started?"

The Need for Health Promotion

One way to attempt to solve the problem of escalating health care costs is to focus more energy on prevention rather than treatment. Many authorities agree that this strategy has tremendous potential for the future of the United States:

> ...any future advances made in improving the nation's health will not result from spectacular bio-medical breakthroughs. Rather, advances will result from personally initiated actions that are directly influenced by the person's health-related activities, values, belief, and knowledge. (Wisconsin Department of Public Instruction, 1985)

Evidence suggests that even a modest health promotion program can have a positive impact on health care costs of employees. A study in Ontario, Canada, correlated physical fitness with medical care. It recorded the frequency of hospital and doctor visits, number of days absent due to illness, and the number of physician claims made under the Ontario Health Insurance Plan. The study concluded that:

- People with higher levels of physical fitness tend to have lower medical claims.
- An estimated reduction of 31 million medical claims could be expected if all adults ages 20 to 69 attained at least average physical fitness.
- People with higher levels of fitness tend to have reduced incidence of coronary artery disease.

The Control Data Corporation studied 5,000 of its employees who participated in their "Stay Well" health promotion program. The results indicated that regular exercisers had a 36 percent decrease in health care expenditures and a significant decrease in hospital stays. These studies offer excellent support for physical fitness as an integral part of the school health promotion program.

Planning a School Health Promotion Program for Employees

The process for planning a school health promotion program for employees does not have to be very difficult or time consuming. Some of the preplanning considerations might include:

- an inventory of available resources within the school and community
- a philosophy upon which the program may be built
- some general goals

For example, goals developed by school staff members from Fairfax County, Virginia, schools included (Tager, 1985):

- greater cohesiveness
- improved communication
- improved self-esteem
- improved morale
- more supportive staff
- reduced absenteeism
- more energy
- greater productivity
- less draw on sick leave bank
- less draw on medical insurance
- reduced job burnout
- greater commitment to the school mission
- greater motivation
- more positive attitudes

The actual implementation phase of such a plan might include the following steps:

Step 1: Screening. In this step, individuals are asked to complete a medical history form designed to screen for serious medical problems that would be deterrents to program participation. A sample medical form is provided in Figure 5.

Step 2: Assessment. A wellness profile could be used as an assessment instrument to determine the strengths and weaknesses of an individual's present lifestyle. See the Healthstyle sample wellness profile in Figure 6.

Step 3: Setting Personal Goals. Based on the wellness profile, individuals are asked to establish some personal health-related goals for themselves. Common choices might include lifestyle changes in such areas as nutritional habits, weight control, exercise, stress management, smoking or safety.

Step 4: Scheduling Activities. Program coordinators assist the participants in scheduling activities that will help them attain their goals. The use of school facilities and school personnel to accommodate the activity sessions requires time and coordination, but also provides ownership, pride and staff cohesiveness when conducted properly. Potential program activities are listed in Figure 7.

Step 5: Reinforcement and Feedback. Planners need to devise methods of reinforcement so participants remain motivated to continue their positive behavior change. Feedback from participants (both positive and negative) to the planners helps improve the quality of the program.

Step 6: Reassessment of Personal Goals. After a designated period of time, individuals are encouraged to assess their progress by re-examining their wellness profile and goal statements.

Step 7: Repeat the Cycle. Individuals may want to continue their present programs or may choose to set new goals for themselves in new areas of lifestyle improvement.

Can School Health Promotion Be Cost Effective?

Education continues to struggle with funding levels that make it difficult to finance all the programs necessary for student and staff growth. In addition, an era of strict accountability forces school administrators to maximize the effects of their budgets. Given the tenor of the times, doesn't it seem appropriate for decision makers in education to support school health promotion programs that are cost-effective? The impact of staff school health promotion programs on absenteeism in both Dallas and Albuquerque has already been discussed. In both cases, absenteeism savings were significant enough to offset the cost of the health promotion program.

Figure 5

Medical History Form

Name ______________________________
School ______________________________
Date ______________________________
1. Age __________ **2. Sex** __________ **3. Race** __________

4. Medical Background

Please check if you have had any of the following:

diseases of the heart or arteries ______
diabetes or abnormal blood sugar ______
stroke ______
epilepsy ______
anemia ______
abnormal chest x-ray ______
asthma ______
other lung disease ______
orthopedic or muscular problems ______

If you checked any of the above, please explain in more detail:

____
____
____

5. Present Health Status

Please note if any of the following apply to you:

diseases of the heart or arteries
doctor said blood pressure too high or too low ______
doctor said EKG (electrocardiogram) abnormal ______
diabetes ______
epilepsy ______
stroke ______
chest x-ray abnormal ______
asthma ______
other lung disease ______
orthopedic or muscular problems ______

Please explain in more detail the items you checked:

____
____
____

Figure 5 (continued)

6. Physical Activity

Are you taking part in a regular exercise program? Yes ________
No ________

Do you regularly walk or run one or more miles without stopping? Yes ________
No ________

If you answered "yes," how many miles do you average per day or in a typical workout? Miles ________
How long does it take you to cover a mile? Time (Min:sec) ________
Do you lift weights or do calisthenics? Yes ________
No ________

Do you take part in competitive sports? Yes ________
No ________

If "yes," list them: ________________________________
How often? (times per month) ________________________
If not exercising at present, how long has it been since you last exercised regularly? ________

7. Cardiovascular Disease in Family

Has anyone in your family suffered from cardiovascular disease (myocardial infarction, hypertension, hyperlipidemia)

Who (What relation to you)	**Nature of problem**	**Age at onset or death**

8. Smoking

Do you smoke? Yes ________ No ________
If "yes," how many packs a day? ________
If you're a former smoker, how long ago did you quit? ________

9. Stress and Tension Level

How would you describe yourself?
1. relaxed, not at all tense ________
2. somewhat tense ________
3. moderately tense ________
4. very tense ________

Figure 5 (continued)

10. Medications Used

Please list any medications you are taking:

Medication	**Dosage**		**Taken since:**
(Name)	**Strength**	**How often**	
________	________	________	________
________	________	________	________
________	________	________	________

Do not write below this line

---

11. Risk Analysis

[To be filled out by program coordinator or consultant]

Risk Factors	**Current Level**	**At Risk** (check)
personal history	________	________
ECG	________	________(positive)
blood pressure	________	________(>140/90)
inactivity	________	________
obesity	________% fat ________height ________weight	________(>22-19%)
hyperlipidemia:		
cholesterol	________mg%	________(>250mg)
triglycerides	________mg%	________(>150mg)
glucose	________mg%	________(>110mg)
HDL ratio (total cholesterol divided by HDL)	________	________(>4.5)
family history	________	________
smoking	________	________
tension	________	________ (>level 3)
diabetes	________	________
age	________	________(>40)
resting heart rate	________	________(>90)

Adapted with permission from the American Council of Life Insurance and Health Insurance Association of America. M. J. Tager. 1985. *Wellness at the School Worksite: A Manual.* Washington, DC.

Figure 6
Healthstyle: A Self-Test

All of us want good health. But many of us do not know how to be as healthy as possible. Health experts describe *lifestyle* as one of the most important factors affecting health. If fact, it is estimated that as many as seven of the ten leading causes of death could be reduced through common-sense changes in lifestyle. That's what this brief test, developed by the Public Health Service, is all about. Its purpose is simply to tell you how well you are doing to stay healthy. The behaviors covered in the test are recommended for most Americans. Some of them may not apply to persons with certain chronic diseases or handicaps, or to pregnant women. Such persons may require special instructions from their physicians.

	Almost Always	**Sometimes**	**Almost Never**
Cigarette Smoking			
If you *never smoke,* enter a score of 10 for this section and go to the next section on *Alcohol and Drugs.*			
1. I avoid smoking cigarettes	2	1	0
2. I smoke only low tar and nicotine cigarettes *or* I smoke a pipe or cigars.	2	1	0
Smoking Score:________			
Alcohol and Drugs			
1. I avoid drinking alcoholic beverages *or* I drink no more than 1 or 2 drinks a day.	4	1	0
2. I avoid using alcohol or other drugs (especially illegal drugs) as a way of handling stressful situations or the problems in my life.	2	1	0
3. I am careful not to drink alcohol when taking certain medicines (for example, medicine for sleeping, pain, colds and allergies) or when pregnant.	2	1	0
4. I read and follow the label directions when using prescribed and over-the-counter drugs.	2	1	0
Alcohol and Drugs Score:________			

Figure 6 (continued)

Eating Habits	**Almost Always**	**Sometimes**	**Almost Never**
1. I eat a variety of foods each day, such as fruits and vegetables, whole grain breads and cereals, lean meats, dairy products, dry peas and beans, and nuts and seeds.	4	1	0
2. I limit the amount of fat, saturated fat, and cholesterol I eat (including fat on meats, eggs, butter, cream, shortenings, and organ meats such as liver).	2	1	0
3. I limit the amount of salt I eat by cooking with only small amounts, not adding salt at the table, and avoiding salty snacks.	2	1	0
4. I avoid eating too much sugar (especially frequent snacks of sticky candy or soft drinks).	2	1	0

Eating Habits Score:________

Exercise/Fitness	**Almost Always**	**Sometimes**	**Almost Never**
1. I maintain a desired weight, avoiding overweight and underweight.	3	1	0
2. I do vigorous exercises for 15-30 minutes at least 3 times a week (examples include running, swimming, brisk walking).	3	1	0
3. I do exercises that enhance my muscle tone for 15-30 minutes at least 3 times a week (examples include yoga and calisthenics).	2	1	0
4. I use part of my leisure time participating in individual, family or team activities that increase my level of fitness (such as gardening, bowling, golf and baseball).	2	1	0

Exercise/Fitness Score:________

Figure 6 (continued)

	Almost Always	Sometimes	Almost Never
Stress Control			
1. I have a job or do other work that I enjoy.	2	1	0
2. I find it easy to relax and express my feelings freely.	2	1	0
3. I recognize early, and prepare for, events or situations likely to be stressful for me.	2	1	0
4. I have close friends, relatives or others to whom I can talk about personal matters and call on for help when needed.	2	1	0
5. I participate in group activities (such as church and community organizations) or hobbies that I enjoy.	2	1	0
	Stress Control Score:________		
Safety			
1. I wear a safety belt while riding in a car.	2	1	0
2. I avoid driving while under the influence of alcohol and other drugs.	2	1	0
3. I obey traffic rules and the speed limit when driving.	2	1	0
4. I am careful when using potentially harmful products or substances (such as household cleaners, poisons and electrical devices).	2	1	0
5. I avoid smoking in bed.	2	1	0
	Safety Score:________		

What Your Scores Mean to You

Scores of 9 and 10

Excellent! Your answers show that you are aware of the importance of this area to your health. More important, you are putting your knowledge to work for you by practicing good health habits. As long as you continue to do so, this area should not pose a serious health risk. It's likely that you are setting an example for your family and friends to follow. Since you got a very high test score on this part of the test, you may want to consider other areas where your scores indicate room for improvement.

Scores of 6 to 8

Your health practices in this area are good, but there is room for improvement. Look again at the items you answered with a "Sometimes" or "Almost Never." What changes can you make to improve your score? Even a small change can often help you achieve better health.

Scores of 3 to 5

Your health risks are showing! Would you like more information about the risks you are facing and why it is important for you to change these behaviors? Perhaps you need help in deciding how to successfully make the changes you desire. In either case, help is available.

Scores of 0 to 2

Obviously, you were concerned enough about your health to take the test, but your answers show that you may be taking serious and unnecessary risks with your health. Perhaps you are not aware of the risks and what to do about them. You can easily get the information and help you need to improve, if you wish. The next step is up to you.

Figure 7

Activities for Health Promotion

- exercise/fitness
- smoking cessation
- nutrition
- weight control
- stress management
- wellness cooking
- safety education
- cholesterol control
- self-care
- parenting skills
- low-back pain prevention
- CPR
- alcohol/drug use prevention
- hypertension control
- retirement

But what about other variables? Wouldn't it also be possible to save money by reducing the high cost of health care? The Ottawa Health Insurance Plan documented the reduction in medical claims by those involved in physical fitness programs. Control Data Corporation showed a 36 percent decrease in health-care costs for those who participated in the "Stay Well" employee health promotion program (Tager, 1985).

Researchers have suggested that the dollars spent on employee health promotion produce savings to the organization of more than one dollar to almost six dollars. Obviously, the costs of an employee health promotion program can have a very positive impact on the financial conditions of an organization.

However, some researchers have warned against evaluating health promotion programs solely on the merits of cost-effectiveness. These experts suggest that considerations should be made on the broader perspective and understanding that health promotion can have a positive impact on the lives of the participants in the physical, mental and social dimensions. These improvements are part of a much larger goal for our population as a society (Breslow, 1990; Warner, 1987). Others have noted that the influence of health promotion on the development of healthful environmental surroundings that contribute to positive lifestyle behaviors is a higher priority than cost-effectiveness (Warner, 1990).

Much could also be said in support of the responsibility of school staff members as role models for the students within their environments. By setting healthy examples in their lifestyle choices to help themselves, they can deliver a strong message to the students with whom they come in contact on a daily basis. This indirect method of teaching may be more powerful than any of us care to imagine.

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The Comprehensive School Health *Challenge*

> *"The chapters in this book . . . challenge us to use our scientific knowledge, professional skills, individual commitment, community support and political will to protect and improve the health of all school-age children through education."*
>
> — From the Foreword by
> M. Joycelyn Elders, MD

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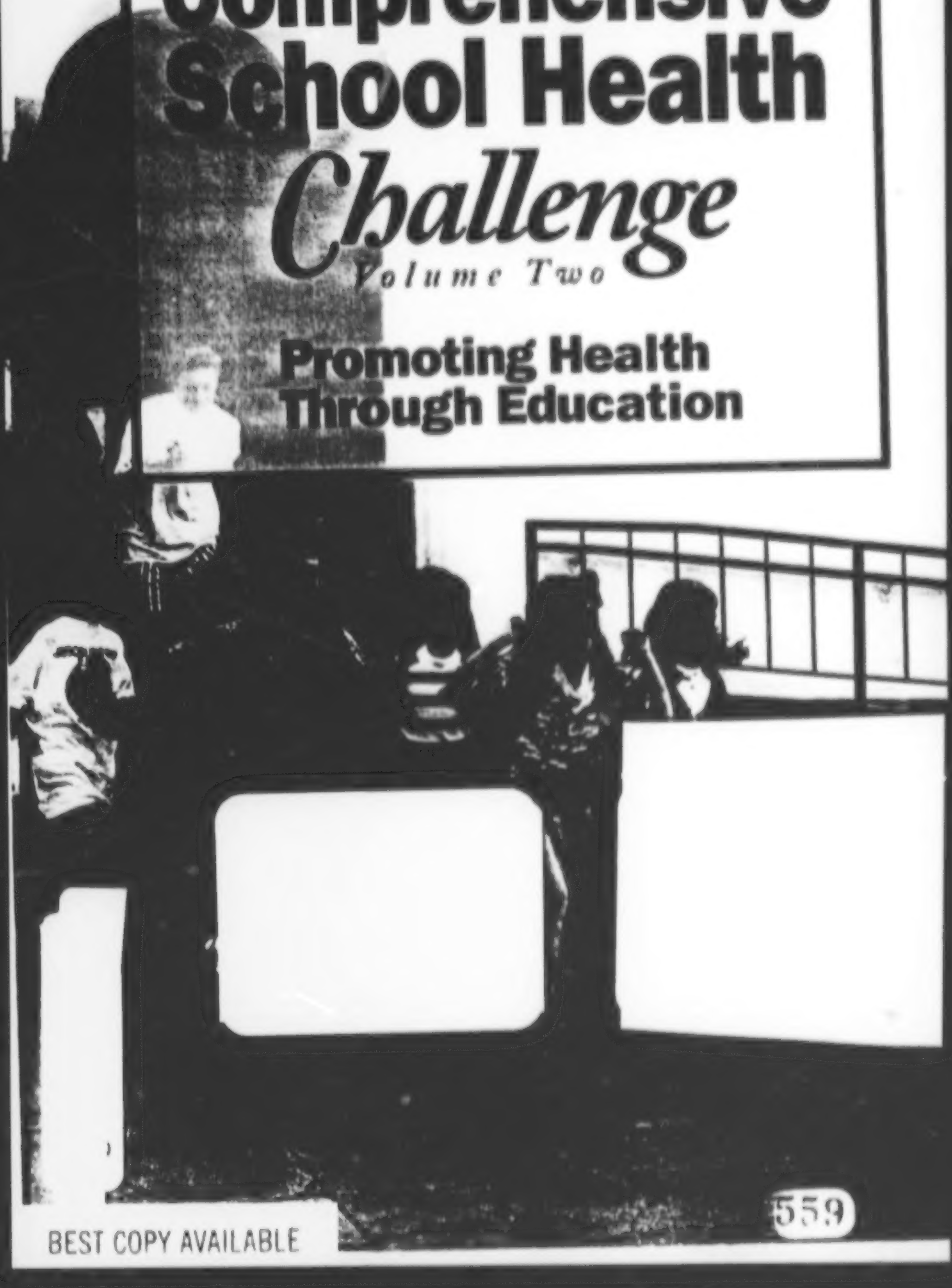
The Comprehensive School Health *Challenge*

Volume Two

Promoting Health Through Education



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The Comprehensive School Health Challenge

The Comprehensive School Health Challenge

Promoting Health Through Education

Volume Two

Peter Cortese, DrPH, CHES, and
Kathleen Middleton, MS, CHES, Eds.

ETR ASSOCIATES
Santa Cruz, California
1994

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Dedication

To Dr. Elena Sliepcevich, whose vision of the possibilities in comprehensive school health continues to light the way.

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Foreword

In 1987, after 26 years of practice as a pediatrician and specialist in endocrinology, I was approached by then-Governor Bill Clinton with an intriguing offer—to serve as director of the Arkansas Department of Health. It was an offer I couldn't refuse. One of my earliest tasks was to learn more about the status of children's health in Arkansas and the nation. Even after a lifetime of pediatric practice, I was shocked by what I learned. Most disturbing to me was the fact that teenagers were the only population group in the nation experiencing a rising mortality rate. And these children were *having* children at alarming rates, creating the hub in the cycle of American poverty. These facts propelled me into a campaign to increase public awareness and action regarding the health needs of children and youth.

It has been said that you can't educate a child who isn't healthy and you can't keep a child healthy who isn't educated. I think that statement succinctly states the challenge before all of us who want to improve the health and educational status of our children. Clearly, poor health in all its dimensions adversely affects school performance. And, increasingly, the threats to the health of our children are not biomedical in origin. Injuries, homicide, suicide, pregnancy and substance use are experienced by American youth at alarming rates. These contemporary morbidities are primarily the result of social environment and behavior.

We *must* give greater priority to policies and programs that advance preventive health care practices. At issue is whether we want to invest now or pay later. We can invest in strategies that make a positive difference in our children's health and future, or we can continue to pay for costly intervention and treatment of preventable problems. I think the most promising strategy we can invest in is comprehensive school-based health education.

The chapters in this book cover a continuum of issues within today's school health education challenge: a review of the past, a vision of the future, the nuts and bolts of curriculum content and implementation, key concerns within health education research, and the growing need for partnerships. The chapters challenge us to use our scientific knowledge, professional skill, individual commitment, community support and political will to protect and improve the health of all school-age children through education. With a consensus of values and a collaboration of effort, it's a challenge I know we can meet.

M. Joycelyn Elders, MD

Preface

Comprehensive school health is a concept whose time has truly come. The major health risks children and youth face today can be reduced or minimized by effective prevention methods. Never before has this concept been so universally embraced. The Youth Risk Behavior Surveillance System (YRBSS) recently established by the U.S. Centers for Disease Control and Prevention (CDC) has provided strong evidence of the existence of these risk behaviors among our youth. We know that most of the health problems teenagers experience are caused by a relatively small number of behaviors, such as drinking and driving and sexual intercourse at a young age.

Every year, 1 million unintended pregnancies occur among teenagers in the United States. This group also experiences 2.5 million cases of sexually transmitted disease each year. In the United States, nearly 70 percent of all deaths in young people ages one through twenty-four result from the following four causes:

- motor vehicle crashes—33 percent
- other unintentional injuries—15 percent
- homicides—10 percent
- suicides—10 percent

Acute and chronic morbidity also result from these causes.

Sixty percent of all deaths among all age groups in the United States are due to heart disease and cancer. Tobacco use, consumption of excessive fat, and lack of physical activity play a major role in these diseases. These behaviors are frequently established during youth. With proper educational intervention, the health problems caused by these behaviors can be prevented or minimized.

In 1988, CDC began to monitor these risky behaviors through cooperative agreements with state education agencies. As the years go by, these periodic surveys provide us with data about how we are progressing in our efforts to change the behavior of our school-age children and youth.

Schools include many health-related components in their programs. For several years, many leaders in the school health education field have proposed that these elements should work in concert to improve the health of students, faculty and staff. Health education alone cannot do the job. We need coordinated efforts among those who manage or provide the following health-related components.

- health education
- school lunch programs
- guidance and counseling
- physical education
- school health services
- school health environment
- schoolsite health promotion program for faculty and staff

Those who provide these components must also work with individuals and groups in the community as well as parents. A coordinated effort is an essential aspect of a comprehensive school health program.

The first National Education Goal in *America 2000*, a report of the U.S. Department of Education, calls for every child in America to start school ready to learn. A quality school health program should be designed to help students maintain such a healthy start. In addition, a good comprehensive school health program can be a great help toward the nation's attainment of the goals delineated in the U.S. Public Health Service's document *Healthy People 2000*.

The authors of the chapters in *The Comprehensive School Health Challenge: Promoting Health Through Education* are all recognized leaders in the areas about which they write. The work is presented in two volumes and is designed to give you the impressions of leaders based upon their extensive experience. Volume One, the first eighteen chapters, addresses issues of goal-setting, coordination of programs, skill development and content guidelines. The fourteen chapters in Volume Two focus on research and evaluation, restructuring health education programs to meet "real life" education challenges, preparation of educators, and community linkages.

We hope this approach will be helpful to those planning to implement comprehensive school health programs, to those studying to be professionals in one of the component areas of a comprehensive school health program and to those wanting to improve their programs. Leaders developing policy related to school health programs can use this book as a tool for preparing advocacy speeches or documents. Community members and parents who want to learn more about what a health program can accomplish in a school can use this book as a guide.

All too frequently health programs are planned and implemented in a noncoordinated way. We hope this book will help convince you that a total comprehensive approach is the answer to a successful program—a program that will help to reduce illness, disease and infirmity among our citizens.

Acknowledgments

The efforts of numerous individuals in the development and production of this publication must be acknowledged. First, we would like to thank the contributors. Throughout this project, we had the great pleasure of working with dedicated and talented professionals. We are truly grateful for the time and energy given to this project by some of the busiest people we know.

We specifically want to acknowledge Dr. Wanda Jubb for her support of this project. She was involved in conceptualizing the framework of the book and the development of specific chapters.

Staff in ETR Associates' Editorial and Prepress departments deserve special acknowledgment. We feel fortunate to have had such capable people on the team for this project.

Finally, we wish to acknowledge Mary Nelson, publisher at ETR Associates. This project could not have happened without her leadership. She developed the prototype book in ETR Associates' "Challenge" series and continues to support the development of professional yet practical materials for health education.

Chapter 19

The Science Base for Comprehensive Health Education

Robert S. Gold, PhD, DrPH, FASHA

School health education has a long history, but the last three decades have been an especially important time for comprehensive school health education (Means, 1975). This movement began in 1964 with the publication of the *School Health Education Study*, the first comprehensive assessment of the state of the art of school health education practice in the United States (Sliepcevich, 1964). This watershed study resulted in the development of the first curricular model for school health education based on a "conceptual approach," with a coordinated K-12 scope and sequence.

Over the next twenty years came the increasing recognition of the role that individual choice and health behavior play in the health status of individuals, families and communities. This realization culminated in the following events:

- 1978—Adoption by the World Health Organization of the goal of "Health for All by the Year 2000" (World Health Organization, 1979, 1981)

- 1979—Publication of *Healthy People*, the first Surgeon General's report on disease prevention and health promotion (U.S. Department of Health, Education and Welfare, 1979).
- 1980—The 1990 disease prevention and health promotion objectives for the nation (U.S. Department of Health and Human Services, 1980).

Much was accomplished during the 1980s in terms of federal support for comprehensive health education (Anderson, Christenson and Stone, 1987; Stone, 1985). In fact, a substantial proportion of federal disease prevention and health promotion efforts were directed at schools in the 1990 objectives for the nation (Iverson and Kolbe, 1983).

Now, as we look back on the decade of the 1980s, we see further evidence of the role that prevention through comprehensive health education must play (Gilbert, Gold and Damberg, 1985). Health behaviors of individual choice contribute to more than 80 percent of the morbidity and mortality measured in this country among children and youth. These behaviors relate to

- HIV/AIDS infection
- alcohol and other drug use
- problems associated with teenage pregnancy
- high infant mortality rates
- increasing rates of homicide, suicide and unintentional injury

These health problems are all preventable. Recognition of the increasing severity of these problems and the potential for their prevention has led to efforts to help define the appropriate role for the nation's schools in training and research, health education practice and federal involvement (Gold, Gilbert and Levine, 1983; Kolbe et al., 1986).

The federal government has taken an active stance with its

Federal Ad Hoc Inter-Agency Committee on School Health Promotion and the creation in the federal Centers for Disease Control and Prevention of a Division of Adolescent and School Health (Office of Disease Prevention and Health Promotion, 1983). Recently, the importance of school health was reflected in the legislation providing the potential for re-creation of funding programs for comprehensive school health programs within the U. S. Department of Education.

One major problem is the lack of diffusion of effective policies and programs to sites where none currently exist. This problem is created by several factors:

- the inadequacy of the research agenda for comprehensive school health education programs
- weaknesses in the state of the art for research on comprehensive school health education
- the absence of a consensual strategy for effectively organizing the science base on comprehensive school health programs
- the lack of sustained effective communication about school health activities—even at the federal level

The last time a formal interagency meeting on comprehensive school health education was convened was in 1984 (Office of Disease Prevention and Health Promotion, 1984). Much that has been done during the last three decades in health education has been unused by those responsible for comprehensive school health education. Substantial efforts have been made in the following areas:

Basic research on the determinants and correlates of health behaviors and risk factors:

  - longitudinal studies in Framingham, Massachusetts; Muscatine, Iowa; and Bogalusa, Louisiana (Lenfant, Stone and Castelli, 1987; Stone, Perry and Luepker, 1989)

- the Multiple Risk Factor Intervention Studies conducted by researchers from Stanford, Minneapolis and Pawtucket (Stone, Perry and Luepker, 1989; Killen et al., 1988; Killen et al., 1989)
- multiple site collaborative studies, such as the Child and Adolescent Trial for Cardiovascular Health, funded by the National Heart, Lung and Blood Institute (NHLBI) (Killen et al., 1989)

National surveys of priority health behaviors:

- the Louis Harris evaluation of comprehensive health education in American schools (Louis Harris and Associates, 1989)
- the 1987 *National Adolescent Student Health Survey* (Collins, Appell and Popham, 1988; U.S. Department of Health and Human Services, 1989)
- the *National Children and Youth Fitness Studies* (1984-1986) (Office of Disease Prevention and Health Promotion, 1985; Ross, Delpy et al., 1987; Ross, Pate et al., 1987)
- the Disease Prevention/Health Promotion Supplement to the *Health Interview Survey* (U.S. DHHS, 1992)
- the *National Health and Nutrition Examination Survey* (U.S. DHHS, 1979)
- national surveys of knowledge and attitudes of high school seniors and their parents towards drugs of abuse, yearly since 1977 (Johnson, O'Malley and Bachman, 1986)
- the Youth Risk Behavior Surveillance System (YRBSS), an epidemiologic surveillance system established by the Centers for Disease Control and Prevention (Kolbe, 1991)

Evaluations of categorical health education programs:

- more than fifteen National Cancer Institute school-based smoking prevention trials (Glynn, 1989)
- more than eight National Cancer Institute smokeless to-

bacco prevention trials (Boyd and Glover, 1989)

Evaluations of comprehensive health education programs:

- the National School Health Education Evaluation Study (Connell, Turner and Mason, 1985; Christenson et al., 1985)
- the *Teenage Health Teaching Modules* evaluation (Ross et al., 1989)
- the Know Your Body project evaluation (Bush et al., 1989; Walter, 1989; Williams, Carter and Wynder, 1983)
- more than ten NHLBI cardiovascular school-based health promotion studies (Stone, Perry and Luepker, 1989)

Studies of parental involvement with comprehensive health education programs:

- Minnesota Heart Healthy Program (Perry et al., 1988; Perry et al., 1989)
- Williamsport school-based cardiovascular prevention programs (Cohen, Felix and Brownell, 1989)
- San Diego Family Health Project (Nader et al., 1989)

Assessments of state policies:

- *School Health in America: An Assessment of State Policies to Protect and Improve the Health of Students* (Kolbe et al., 1987)

Invitational conferences on how to deal with issues related to comprehensive school health education:

- National Conference on School Health Education Research (Stone et al., 1983)
- Prospects for a Healthier America: Achieving the Nation's Health Promotion Objectives (Office of Disease Prevention and Health Promotion, 1984)

The state of the art in health education research and evaluation has made important strides (Kreuter, Christenson and Davis, 1984; Flay, 1986). We are now able to document hundreds of effectiveness studies, many under well-controlled conditions. These evaluations have had as their primary purpose the testing and documentation of the effect of both categorical and comprehensive health education programs on student knowledge, attitudes and behaviors. The technology has now taken us beyond these effectiveness studies because local implementations of curricular models are variable and therefore subject to influences beyond the models themselves (Basch, 1982).

> As a result, programs thought to be comparable and ready for evaluation were found to vary greatly in form and structure and, in many cases, to be in constant state of flux, without clearly defined assumptions or objectives. An assessment of program implementation may reveal that the program is not in place as designed, is not "evaluable" in its current form and, as a result, needs an overhaul, better attention to implementation, more time to develop, or all three. (Ross et al., 1989)

Such studies are best exemplified by the National School Health Education Evaluation Study (Connell, Turner and Mason, 1985) and the *Teenage Health Teaching Modules* evaluation study (Ross et al., 1989).

Currently, the field has progressed to the point of focusing on "understanding the dissemination, adoption, implementation, and maintenance of effective programs. The emergent issue of concern was how to transport effective programs into new environments" (Ross et al., 1989). Because of that concern, significant progress in studying this process has already been made in specialty areas such as cancer, hypertension and in comprehensive programs (Anderson and Portnoy, 1989; Steckler et al., 1987; Parcel et al., 1987; Fors et al., 1989; Basch, 1984; Basch, Eveland and Portnoy, 1986).

In December 1987, a special issue of the *Journal of School Health* focused on the expanded concept of the comprehensive school health program. With this publication came consensus and a significant expansion of the field's view of comprehensive school health. In thinking about the role that research plays in the planning, implementation and evaluation of health education interventions, it becomes clear that a much broader science base must be brought to bear to deal with the increasingly complex and sophisticated problems associated with the health needs of our target audiences and the professional goals we establish for ourselves.

With the Year 2000 Objectives comes an emphasis on concerns related to the underserved, with particular attention paid to women and other high-risk populations. Of the many objectives, some apply directly to activities for health protection (tobacco cessation, diet modification and chronic disease screening), while others relate to actions that could be taken by individuals (reduce cigarette smoking, reduce dietary fat intake, increase intake of complex carbohydrate and fiber-containing foods, limit exposure to sunlight).

Planning comprehensive programs for such an extensive set of objectives entails understanding and appropriate application of a sound theory base for health behavior while maintaining a sensitivity to specific minority and other high-risk population needs. Programs must draw on knowledge gained from successful intervention strategies. Such understanding could assist health education professionals in their ability to contribute to the Year 2000 Objectives and would thereby improve the prospects for success of comprehensive school health programs.

Broad Science Base

This understanding comes from an increasingly broad science base. Health educators have the potential to benefit extensively from research done in many fields other than our own in the planning, implementation and management of disease prevention and health promotion activities consistent with the Year 2000 Objectives. As the demands on the health education provider are extended by the expanding concept of comprehensive school health, it becomes increasingly critical to monitor such science bases. Because health educators must contribute directly and indirectly in so many different ways to achievement of the Year 2000 Objectives, such examination becomes essential.

The Year 2000 Objectives process benefited from our experiences in the 1980s. Substantive changes were made, while still maintaining the integrity of the idea of setting a national agenda. Among the most important differences were the following:

- recognition of the importance of additional focus areas (e.g., HIV infection and cancer)
- attention to the vitality and independence of older people
- increased emphasis on prevention of disability and morbidity
- greater attention to improvements in health status of definable population groups at highest risk of premature death, disease and disability
- inclusion of more screening and other interventions to detect asymptomatic diseases and conditions early enough to prevent early death and chronic illness.

The objectives were also reformulated to include specific attention to population groups and school, community and other settings; the recognition of the importance of a coalition of partners committed to the work embodied in the Year 2000

Objectives; and the addition of a priority area on surveillance and monitoring systems. These changes help bolster the proposed effort.

With these changes, the process of national agenda setting has been improved. At the same time, research in many other fields provides a mechanism for contributing to our science base. Figure 1 contains a selected summary of research from a variety of fields that could provide support to health educators in the planning, implementation or evaluation of health education efforts in schools.

What have we learned from this literature? There are many lessons, but a partial list includes the following, in no particular order of importance:

- An integrated approach is important. While there is a great deal of potential from targeted programs, it appears that those directed at multiple risk factors have the greatest potential.
- While our strategies must be comprehensive, the messages, both explicit and implied, must be consistent. An instructional program not supported explicitly with consistent policy, environmental and service programs, and services reduces the potential impact of the program.
- No single approach works for all. To reach audiences diverse in literacy, gender, race, ethnicity, culture and social groupings requires consideration of individuals, audience segmentation and multiple strategies for triangulation.
- Success is not assessable only when a positive behavior is exhibited; relapse prevention is essential in evaluating programs.

Figure 1

Selected Summary of Pertinent Research Literature

Selected Lessons Learned	Citations
• Significant improvements in outcomes are achieved with attention to multiple risk behaviors.	Dwyer, Viney and Jones, 1991; Johnson, 1992; Kottke et al., 1985; Lorion and Ross, 1992; Puska et al., 1981; Shane and Kaplan, 1988; Wynne, 1989
• The reasons people make changes in health-related behaviors are varied and individualized.	Davis et al., 1987; Iverson et al., 1989; Wynne, 1989
• Mass media have only modest effects on behavior changes, yet do affect the initial phases of the behavior change process.	Flay, 1987; Warner and Murt, 1983
• While most health education programs and interventions are based on several behavior theory constructs, it is not yet possible to identify which are most important.	Elder et al., 1985; Lefebvre et al., 1987; Pentz et al., 1989, Puska et al., 1988
• School health instruction based on skills training, peer involvement, social learning theory and community involvement has the greatest impact.	Botvin and Eng, 1982; Flay, 1985; Glider, Kressler and McGrew, 1992; Hansen et al., 1988; Johnson et al., 1986; Johnson, 1992; Murray et al., 1987; Schinke, Gilchrist and Snow, 1985; Thomas, Fick and Henderson, 1992
• Self-monitoring may enhance behavior change efforts.	Bertera and Cuthie, 1984; King et al., 1988; Koegel, Koegel and Ingham, 1986

Figure 1 (continued)

Selected Summary of Pertinent Research Literature

Selected Lessons Learned	Citations
• Environmental variables influence the prevalence and consequences of behavior choices.	Decker, Graitcer and Schaffner, 1988; Hoadley, Fuchs and Holder, 1984; Marburger and Friedel, 1987; Mayer et al., 1986; Pentz et al., 1989; Seekins et al., 1988; Simons-Morton et al., 1991; Taggart et al., 1990; Wagner and Winnett, 1988
• Relapse prevention efforts are necessary to sustain behavior changes; however, little is known about factors influencing relapse for specific behaviors.	Curry et al., 1988; Vaillant, 1988
• Social support affects all phases of behavior change.	Lewis, Battistich and Schaps, 1990; Broadhead et al., 1989; Morisky et al., 1985
• The characteristics of the individual influence the success of potential interventions.	Holloway et al., 1988; Jarvik and Schneider, 1984; Klesges et al., 1988
• Significant benefits can come from the active and appropriate engagement of parents and families in prevention programs.	Bruce and Emshoff, 1992; DeMarsh and Kumpfer, 1986; Freedman, 1988; Johnson, 1992; Kumpfer, 1987; Ruch-Ross, 1992; Springer et al., 1992

Figure 1 (continued)

Selected Summary of Pertinent Research Literature

Selected Lessons Learned	Citations
• After-school programs have substantial potential to contribute to the health of youth.	Ross et al., 1991
• The importance of focusing on comprehensive efforts in schools, including teaching reform, cooperative learning strategies, policy issues, school bonding.	Lewis, Battistich and Schaps, 1990; Collins, 1991; Hawkins et al., 1986; Johnson, 1992; Knight, 1991; Nader, 1990; Pentz et al., 1989; Simons-Morton et al., 1991
• Appropriate attention must be paid to literacy, social, cultural, gender and ethnic diversity in program planning.	Advertising Age, 1990; Conner and Conner, 1992; Hall and Reyes, 1992; Ireland, 1990; Isikoff, 1989; Jones, McCullough and Dewoody, 1992; Marin and Marin, 1991; Oyemade and Brandon-Monye, 1990; Rana, Knasel and Haddy, 1992; Shane and Kaplan, 1988; Smith, 1992; Terry, Silka and Terry, 1992
• The importance of teacher training for effective educational programs.	Koenig, 1992; Perry, Murray and Griffin, 1990; Ross et al., 1991; Taggart et al., 1990
• The importance of early detection and prevention of risk.	Starfield, 1989
• The potential of creative school community linkages.	Murray et al., 1987; Shane and Kaplan, 1988

Why We Do Research in Health Education

We engage in research to answer questions of importance. Figure 2 contains a selected list of high priority research questions identified in *Healthy People 2000* (U.S. DHHS, 1990). Ordinarily, the major objective is to describe and/or explain phenomena either for prediction, control or understanding of causal mechanisms. Our attempts to study relationships among presumed risks and their subsequent effects on health, or factors that influence individual decision making, or the potential success of interventions designed to enhance the health of individuals, are all related to the following three activities:

- to *predict* the circumstances under which health consequences will occur or the likely health outcomes of choices or prevention programs
- to identify our potential to *control* causal chains of events to reduce the potential for health risks
- to gain a better *understanding* of how these causes operate

Usually, the research process in health education will attempt only one of these three key objectives, because to do more in one study would be difficult, unmanageable or unnecessary.

In order to make predictions, we must be able to describe the conditions under which an event occurs. As we more clearly describe these *antecedent conditions*, our ability to make predictions improves. Anderson, Christenson and Stone (1987) suggest that two assumptions must be made to ensure our capacity to control a sequence of events: (1) there must be a clearly described *causal* chain between *antecedents* (causes) and *consequents* (effects), i.e., the linkage must not be by chance; and (2) the causal chain must be amenable to manipulation. In the absence of these two assumptions, control cannot be exercised. Understanding requires explaining how the causal chain between antecedents and consequences operates. Many would suggest that this is the highest level of explanation, yet it is important to recognize that such understanding can occur without our being able to manipulate or control a chain of events.

Figure 2
Selected Research Priorities in *Healthy People 2000*

- Research on the determinants of regular physical activity to identify the knowledge, attitudes, and behavioral and social skills associated with a high probability of adopting and maintaining a regular exercise program.
- The nutrient and energy requirements of older adults.
- Biochemical markers of dietary intake to improve ability to monitor the effects of dietary intervention.
- Effective educational methods to translate dietary recommendations into appropriate food choices and sustained behavioral changes for various subpopulations.
- The relationship of total body fat and body fat distribution to health outcomes.
- The etiology, epidemiology, prevention and treatment of eating disorders.
- Research into reasons people change or do not change behavior related to health as a result of exposure to health promotion programs.
- Evaluation of the degree to which health promotion in schools, communities, health care facilities, worksites and religious institutions changes lifestyle choices, and the consequent changes in health status, health service use, productivity and economic costs to society.
- Investigation of the ways changes in external social environment reinforce and/or interact with health promotion and education strategies.
- Studies to delineate the most effective elements of intervention strategies carried out in schools, worksites, community-based programs and health care settings.

Figure 2 (continued)

Selected Research Priorities in *Healthy People 2000*

- Further research on worksite programs, particularly more studies of programs in new and emerging service industries and small business and programs that use the worksite to reach not only workers but their families, retirees and the community at large.
- Research in health promotion for special worker populations such as women, older adults and minority groups, who are entering the workforce in increasing numbers.
- Operational research in local public health (e.g., strategic and capacity-building planning models, specification of core community services, and alternatives for organizing and delivering community programs).
- Research to understand aging processes and how aging is distinct from disease to better understand which changes are inevitable and which are open to modification.
- Research in the areas of primary and secondary prevention for older adults to identify ways to maintain health, independence and function into later years.
- Research to learn more about when preventive interventions can still be effective in either preventing the onset or ameliorating the course of disease, and which outcomes have the greatest impact on functional independence and quality of life of older adults.

Questions Relevant to Health Education

Health education is a relatively young discipline, and its practice is only now beginning to have a rich tradition upon which to build. There are many questions yet unanswered. Among them are the following:

- Are health behaviors and health practices amenable to influences arising out of an educational process?
- If they are, in what settings can these influences best be exerted to improve the health of individuals and groups?

- Should we be involved in the process of influencing health behaviors and practices?
- How do we measure health quantitatively and at the same time ensure that we remain aware of its qualitative essence?
- How do we evaluate prevention and health promotion interventions?

These are just a few of the pertinent questions we should be asking about health education as a discipline and as a process. A comprehensive research program could provide practitioners, service providers and the discipline with the following benefits:

- a measure of the appropriateness of the major types of interventions being used in prevention efforts, including those targeted at special, high-risk populations
- an assessment of both the obstacles and those factors that facilitate effective research and evaluation
- a guidebook by which programs could be identified as "models," deserving of wider replication and further study and support, upon which to build
- the identification of effective methods to be used in the assessment of community needs
- the identification of gaps in existing services, programmatic initiatives and the basic knowledge base encompassing prevention theory

Problems with Research and Evaluation Efforts

Research and evaluation in health education have, for a number of reasons, been of limited quality. Many of these shortcomings are shared by related disciplines and occur for similar reasons. Many constraints are imposed upon health educators and health education researchers and tend to limit the utility of their research efforts. These constraints may be a function of any of the following:

- design choices made by the investigator (e.g., sampling strategy, instrumentation)
- constraints inherent to the setting in which the research is conducted (e.g., limited ability to randomly assign students to methods, limited resources, limited research/evaluation skills)
- constraints imposed by limitations in the data collected (e.g., psychometric properties)
- constraints imposed by limitations in the state of the art or by inadequate choices of analytic procedures available (e.g., the absence of an appropriate statistical strategy)
- constraints imposed by an absence of available program models to follow
- constraints imposed by lack of leadership in the field of health education research and evaluation

Each of these constraints must be dealt with separately. Methodologic constraints must be dealt with by continued research; technical constraints must be dealt with through improved training; resource constraints, the absence of models, and leadership issues must be dealt with by improved funding. Some of the particularly difficult methodologic problems that constrain this research include the following.

No assessment of program evaluability. One of the lessons that should have been derived from the massive evaluations of the War on Poverty in the 1960s is that, before plunging into an outcome evaluation, it is important first to assess program evaluability. In the simplest sense, this means making sure there is a program in place that is worth evaluating and for which cost-feasible evaluation measures may be collected. More specifically, it means specifying the underlying assumptions behind the innovation and the chains of causation presumed to link resources to activities, activities to short-term outcomes, and short-term outcomes to expected program effects. Failure to assess program evaluability means that any outcome evaluation is likely to prove premature.

Inadequate control. The objectives of evaluation and research are to specify plausible alternative hypotheses and to provide data to support or dismiss selected hypotheses.

Lack of standardization in the intervention. If interventions are not used in a reasonably standardized manner, any conclusions regarding their efficacy are not justified. Standardization increases the reliability and validity of the design and should be sought if the objective of the evaluation is to test an intervention as designed.

Inappropriate statistical analyses. These include the use of statistical measures of association (relationship) to make judgments regarding causality, inappropriate units of analysis, and inappropriate choices of statistical procedures.

Exaggeration of findings to meet political or funding needs. On occasion, numbers are used beyond their capacity or exaggerated to justify refunding of programs or satisfy political demands for support of programs.

Recommendations

Based on a review of the literature on research on prevention, it is possible to conclude that there is no consensus on state of the art among health education researchers. With this in mind, the following recommendations are made.

Policy

- Identify prevention research as a priority area, with health educators playing a major role.

- Examine the model policy initiatives engendered in the U.S. Public Health Service's *Healthy People 2000*, the World Health Organization's *Health for All by the Year 2000*, the National Cancer Institute's *Cancer Control Objectives for the Year 2000*, and the American Public Health Association's *Healthy Communities 2000: Model Standards*.
- Identify those initiatives related to prevention and adopt a series of measurable objectives of comparable importance.
- Provide for the development of an implementation plan for these objectives and create an effective research component to which each health educator can contribute.

Agenda Setting

- Conduct a compilation of research data to assess gaps in prevention services.
- Provide incentives to programs that initiate activity with substantive needs assessments and prospective statements of objectives for outcomes and impact.
- Conduct a meta-analysis of published and unpublished research studies in the prevention field to identify exemplary models, methods, measures and interventions.

Capacity Building

- Provide mandatory training in research for all credentialed health educators.
- Convene a consensus conference on health education research methods and provide sessions on the theory and practice of research, as well as reporting on exemplary research models.
- Develop a mechanism to provide for continued communication regarding research developments and initiatives.
- Design a mechanism for integrating operational recommendations based on research results.

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Chapter 20

Program Evaluation Versus Research: More Differences Than Similarities

Donald C. Iverson, PhD

It is often assumed that research and program evaluation involve identical, or very similar, activities. However, program evaluation and research actually have very different purposes. These differing purposes affect the activities planned and conducted for both program evaluation and research. If the difference is not recognized, persons and organizations involved in supporting or conducting such activities are unlikely to have their particular needs satisfied.

Both program evaluation and research are important and needed; both contribute in different ways to the advancement of school health programs. By understanding the differences between program evaluation and research, people engaging in these activities can more adequately satisfy the underlying purposes of the activity.

The primary purpose of program evaluation is to collect and analyze information that will assist school leaders and decision makers in making program-related decisions. The persons who request a program evaluation usually have identified the decisions they need to make. The evaluator's responsibility is to identify and collect information that will facilitate the decision-making process. In this sense, program evaluation activities tend to be externally driven.

On the other hand, the primary purpose of research is to create and/or expand on the knowledge base in a particular area; research results may or may not be directly relevant to a particular issue. Research activities are usually determined and directed by the interests of the independent researchers, and thus are internally driven.

Because of the difference in locus of control, many of the processes and approaches used for program evaluation differ from those used in research. There are at least ten areas in which we can contrast these differing processes and approaches.

Source of the Idea

In program evaluation, the idea for conducting the evaluation is usually generated by those who have responsibility for the program. The motivation to conduct the evaluation may be complex. Different parties with an interest in the evaluation may have differing purposes for initiating the evaluation. Common reasons for conducting evaluation include:

- Gather evidence to demonstrate that the program is effective.
- Collect information to guide efforts to improve the program.
- Determine the percent of the target population that the program is reaching.
- Determine if the program effects are sufficient to warrant expansion of the program.
- Determine the costs and benefits of the program.

- Respond to the request of an outside party for specific information.

Regardless of the particular motivation for initiating the program evaluation, initiation does not come from the evaluator but from the school leaders who have responsibility for the program.

The idea of conducting a research study, on the other hand, is almost always generated by an independent researcher or group of researchers. A primary motivation for a researcher is to expand on current or previous research efforts. For example: Researchers who have been involved for many years in the assessment of skills-based interventions may decide that the logical extension of this research is to develop a skills-based assessment instrument that has acceptable psychometric properties.

Research ideas may also be generated by the professional literature. For example: A researcher may read about the relationship of lifestyle to the number and activity of natural killer cells. As a result, the researcher may decide to study how a stress management curriculum affects the number and activity of natural killer cells.

Sometimes the research agenda is generated by a funding agency, either public or private, whose policy makers determine that there is a need to conduct research in a particular area. The agency then asks researchers to propose approaches to address the research issue. For example: The National Cancer Institute expressed an interest in receiving proposals that addressed cancer risk behaviors among high-risk students.

Thus, one primary difference between program evaluation and research is that in program evaluation the evaluator responds to a particular request from an external source, while research involves a proactive response, with the idea usually generated by the individual researcher or group of researchers.

Determination of the Specific Questions

In a program evaluation, the school leaders who request the evaluation are largely responsible for identifying the specific questions to be addressed in the evaluation. If multiple parties have an interest in the evaluation, some negotiation may be needed to identify the specific questions that are to be the focus of the evaluation.

One role of the evaluator is to help refine the questions so they can be answered in an appropriate and scientific manner. For example: A school district may be interested in determining if the sex education program it developed and implemented three years ago has reduced the STD and pregnancy rate among high school students, as well as increased condom use among sexually active students. While the evaluator can help refine the questions to ensure that they are answerable, the basic focus of the question has been determined by the school officials. If multiple questions are to be addressed in an evaluation, another important role of the evaluator is to try to identify the priority of the evaluation questions.

Identification of the specific questions to be addressed in research are almost always the responsibility of the individual researcher or research team. An exception occurs when the research agenda has been established by a funding body, such as a government agency or foundation. However, even in this situation, the delineation of a specific question often can be determined by the researcher. If many researchers are involved in the project, negotiation may still be necessary to identify the specific research question, but the negotiation is usually based on the academic interests of the researchers.

In research, the intent is to specify the research question to such a degree of precision that specific research hypotheses can be formed and ultimately tested empirically. The more specific the research question, the better, as it helps to eliminate or control the confounding variables.

Thus, in program evaluation, control is again external, as the specific questions to be addressed are determined by those who have requested the evaluation. In research, the specification of the research question is internally driven, being determined by those who, for primarily intellectual reasons, have decided to conduct research on a particular issue.

Determination of the Program or Population to Be Studied

In program evaluation, the persons who request the evaluation usually designate the program that is to be studied. They may also designate the population they want to involve in the evaluation. The designation of the program and/or population for the evaluation is usually based on the interests of school or program officials and their responsibilities for the particular program.

This choice may be made on the basis of political or financial factors; and there may be little room for the evaluator to negotiate changes. For example: Even though a program has been implemented in seven schools within a district, school officials may stipulate that evaluation must be conducted only in schools with mixed ethnic and racial student populations. School officials can also indicate which programs or populations cannot be included in an evaluation.

The process is quite different for research. In research, the decision regarding which program or population to study is made almost solely on the basis of which programs or populations are most appropriate to test the research hypothesis. If the research involves a particular type of program, the researcher will often select the "best" program. If an adequate program is not available, the researcher may develop and subsequently implement a program that is appropriate to test the hypothesis. For example: If the research question is to determine if high school students will adopt behaviors to protect them from HIV, the researcher might try to identify the "best" available HIV education program or assemble a team to develop an HIV education program that can be scientifically assessed. In the latter case, funds are often requested of a government agency or foundation for the development, subsequent implementation and scientific assessment of the program.

If the research pertains more to a particular population than a program, the researcher might try to identify the population in which the specific hypothesis could best be tested. For example: If the researcher was interested in testing new educational approaches to behavior change as they pertain to teen pregnancy, the researcher would try to identify populations with high teen pregnancy rates. Using such a population would allow the hypothesis to be tested with a reasonable sample size and within a relatively short period of time.

To summarize, in program evaluation, designation of the program or population to be studied is based almost solely on the needs and desires of those requesting the evaluation. In research, selection of the program or population to be involved in the project is based primarily on the ability to test the research hypothesis using the selected program or population.

Selection of a Data-Gathering Design

In program evaluation, the selection of a data-gathering design often involves a series of negotiations between school or program officials and the evaluator. Negotiations frequently include informal educational efforts on the part of the evaluator, as school officials may not be cognizant of how factors such as internal and external validity affect confidence in the results of the evaluation. In addition, school officials may not be aware of some of the educational and behavioral nuances that affect selection of a data-gathering design. For example: Since behavior change can be looked at as a continuum involving a series of stages or steps, follow-up data-gathering designs are often needed to detect intended attitudinal and behavioral changes. School officials may not be aware of the specifics of these and other research findings.

In selecting the data-gathering design, the evaluator has a responsibility to negotiate for the data-gathering design with the strongest scientific basis. Quasi-experimental data-gathering designs dominate program evaluation efforts. The evaluator must often negotiate for a pre- and posttest data-gathering design that uses a comparison group, rather than a pre- and posttest data-gathering design with only one group. If a comparison group is used, identification and selection of a possible comparison group is also negotiated with school officials.

Finally, in program evaluation, the data-gathering design used, including the use of follow-up designs, is often determined by the time frame in which the evaluation must be conducted. This time frame is usually dictated by the needs of the school officials and the school schedule. Thus, the selection of a data-gathering design for use in school-based program evaluation efforts often involves significant negotiation between the evaluator and school officials.

In research, selection of a data-gathering design is made by the researcher. The overriding selection criterion is the ability of the design to allow for a scientific test of the stated research hypotheses. Once this decision has been made, the researcher then identifies the programs or populations that are willing to allow the use of the selected data-gathering design. This step often involves "selling" the research project to school officials. Even in this situation, school officials may place restraints on the project because of political and/or logistical concerns. In this instance, the researcher may have to modify the desired data-gathering design. However, the scientific community has a set of expectations with regard to data-gathering designs used in research projects, and if the researcher does not meet these expectations, the proposed research project is unlikely to be funded.

To summarize, in program evaluation, the selection of a data-gathering design usually involves a series of negotiations between the evaluator and school or program officials. The particular constraints affecting selection of the design are identified by these officials. In research, selection of a data-gathering design is predicated almost solely on the ability of the selected design to test the research hypotheses in a scientifically accepted manner.

Determination of Data to Be Collected

In program evaluation, designation of data to be collected is usually limited to data needed to answer the evaluation questions. School officials often prefer to keep data collection to a minimum. If they do not perceive the data to be directly related to the evaluation questions, the evaluator may have to negotiate for the collection of data that will enhance the overall evaluation effort. This situation tends to occur when the evaluator wants to collect data on potential confounding variables, such as locus of control measures for drug use, that will be helpful in explaining evaluation results. The need for these data may not be obvious to school officials, and they may resist their collection.

School officials may sometimes indicate that certain types of data cannot be collected in an evaluation project. For example: While school officials may want to have a sex education program evaluated, they may prohibit the collection of data pertaining to the frequency and type of sexual activities engaged in by students.

In research, on the other hand, the determination of data to be collected is based on the data needed to test the research hypotheses. These decisions are made solely by the researcher or the research team. In addition to gathering data directly pertinent to the research hypotheses, researchers also need to collect as much explanatory data as possible in order to explain the acceptance or refutation of the hypotheses. For example: In a research project to determine the impact of a skills-based HIV-risk-reduction program on seventh and eighth grade students, researchers may determine a need to collect data on factors believed to affect sexual and drug use behaviors, such as family dynamics, involvement in school activities, perception of social norms and sexual and drug activities of close friends.

The researcher may have to justify the need to collect these additional data in a grant application, but, in reality, grant reviewers tend to be supportive of, and quite often expect, a comprehensive data collection effort. Once researchers have identified data to be collected, they identify school districts that will allow such data to be collected within the context of the data-gathering design.

Thus, in program evaluation, the data to be collected are ultimately determined by school officials. The general tendency is to collect the least amount of data required to answer the evaluation questions. In research, it is necessary to collect all the data needed to test the research hypotheses. In addition, relevant explanatory data needed to interpret each of the study's research hypotheses must be collected to meet the expectations of the scientific community.

Determination of the Data Collection Methods

In an evaluation or research project, there are a number of strategies for collecting data, including questionnaires, interviews, observation and record analysis. Each strategy has strengths and weaknesses, so combinations of data collection methods are often used in both program evaluation and research efforts.

In program evaluation, the determination of data collection methods is often based on the expectations of those who commissioned the study. As a general rule, the least intrusive data collection methods are favored by school officials. If evaluation instruments have to be developed, the instrument development efforts usually involve both the evaluator and school officials. As with most of the other processes of program evaluation, this step involves negotiation.

In research, determination of data collection methods is based on what the researcher believes the scientific community expects. For example: If cigarette use data are to be collected, the scientific community may expect physiological verification of the self-reported data. Researchers are also concerned about the psychometric properties of the data collection procedures. If an instrument or procedure has to be developed for a research project, the development activities are planned and implemented by the researcher, with minimal input from school officials.

Once the data collection instruments and/or procedures have been selected by the researchers, they then negotiate with school officials to allow use of the instruments and/or procedures. While some modifications may be required by school policies, the intent of the researcher is to minimize modifications to the instruments and procedures. Researchers will strongly resist any modifications that would be viewed by the scientific community as unacceptable.

In program evaluation, determination of how the data are to be collected is predicated upon negotiation between the evaluator and school officials, with a general rule underlining the negotiations being to identify the least intrusive but acceptable approach. In research, determination of how the data are to be collected is largely predicated upon the researcher's perception of what the scientific community views as being acceptable, as well as what is required to provide a scientific test of the study's hypotheses.

Resolving Problems

When problems occur during the course of a program evaluation, strategies to resolve those problems typically involve negotiations between the evaluator and school officials. Teachers or school officials are likely to identify problems related to program evaluation efforts. Decisions about resolution of identified problems are often based on political, economic and logistic rather than scientific factors. In fact, it is not uncommon in program evaluation for these decisions to have a negative impact on the evaluator's ability to answer the questions being addressed by the evaluation.

In a research endeavor, problems are often identified first by the researchers, in part because they tend to be very concerned with any changes that may affect the scientific integrity of the research project. When problems occur, resolution of the problems is usually negotiated with school officials, but the focus in seeking a resolution is to maintain, to the greatest extent possible, the scientific integrity of the research program.

Solutions to problems are often identified by the researchers and presented to school officials. Negotiation may then occur to select the most appropriate solution. Because of differing scientific standards, research tends to afford less latitude in selecting solutions.

To summarize, when problems occur in program evaluation, the identification of solutions is often based on logistical, economic and political factors, with school officials having a dominant influence in selecting solutions. In research, selection of solutions is based primarily on how those solutions will affect the scientific integrity of the overall research project.

Analysis Plan

In program evaluation, the analysis plan is focused on providing direct answers to the evaluation questions. School officials who request an evaluation often do not understand or appreciate the value of using complex statistical approaches that can provide for more precise and insightful answers. Since evaluators need to explain to school officials exactly what was done and why, they may try to use the least complex statistical approach appropriate. This is not necessarily a negative approach to developing an analysis plan; however, some advanced statistical procedures that could enhance the quality of the answers may not be used because of the reluctance of school officials to invest in the additional time and effort needed to conduct these complex analyses.

The opposite situation occurs with research. Researchers, to ensure that each hypothesis is tested to the satisfaction of the scientific community, tend to use a series of analytic procedures that move from exploratory to definitive to confirmatory. This approach is expected and appreciated by the scientific community. In fact, if advanced statistical procedures are not proposed for a research project, the project analysis plan probably would not be approved by peer reviewers. Because complex statistical analyses often require a great deal of time and effort, research projects are funded at a level high enough to conduct these analyses.

The differences between research and program evaluation are quite apparent with regard to the data analysis plan. In program evaluation, the pressures are to keep it as simple and direct as possible and to spend as few resources as necessary on the analyses. In research, the scientific community expects that the analysis plan will be complex and require significant effort and time.

Dissemination of Results

The school officials who requested the evaluation actually "own" the evaluation data. They can determine if and how the evaluation results are to be disseminated. An evaluator is usually asked to write one or more evaluation reports that directly address the evaluation questions and are understandable to decision makers. If the evaluation report is not well organized and understandable to the decision makers, the evaluation results will have little impact on decisions. In some instances, the evaluation report must be reviewed and approved by school officials before it is officially released.

If the evaluator is interested in publishing the evaluation results in a professional journal, prior permission must be obtained from school officials. Dissemination of program evaluation results usually involves oral presentations to school officials rather than widespread publication.

The determination of how research project results are to be disseminated is made solely by the researcher. The scientific community expects research results to be published in peer-reviewed journals and/or presented at professional meetings. Few limits are placed on what is said in a journal article or at a professional meeting. The researcher is bound only by the rules of scientific integrity. If a researcher submits a manuscript to a peer-reviewed journal and the journal's editors request changes in the manuscript that are unacceptable to the researcher, the researcher has the option of withdrawing the manuscript and submitting it to another journal.

To summarize, selection of strategies to disseminate the results of program evaluation efforts is made by the school officials who commissioned the evaluation, while the release of research results is determined almost solely by the researcher.

Funding

In program evaluation, the funds to support an evaluation have been allocated by school officials and are managed by them. The school officials have identified the scope of the program evaluation and have an approved budget item that indicates how much money can be spent on the evaluation. Negotiations usually occur between the evaluator and the school officials to reach agreement on how much of the evaluation plan can be implemented, given the available funds.

Program evaluation activities are often conducted under contract. If changes are made during the course of the evaluation, financing for those changes must be negotiated with school officials, and an addendum attached to the contract.

Research funding also comes from external sources, but once the research project is approved, control of the money lies primarily with the researchers themselves. A research budget is developed on the basis of the activities required to address the research hypotheses. Researchers have to justify their budgets, but grant applications are reviewed by peers who also conduct research. These peers appreciate and often have sympathy for reasonably generous research requests.

Research is not conducted under contract, but rather in the form of a professional agreement in which the researchers agree to conduct the study as proposed. If problems arise during the course of the research project, the researcher can request changes in the budget. Such requests are usually granted as long as the request doesn't involve additional funds.

To summarize, the monies to support a program evaluation usually come from the school district. School officials control the money in the form of a contract with attached performance standards. On the other hand, while research money also comes from an external body such as a foundation or government agency, once an award has been made, the funding agency usually steps back and allows the researcher to control the money, as long as it is spent in accordance with the intent of the research proposal.

Conclusion

There are instances when a program evaluation activity looks like a research activity and vice versa. However, for the most part, the activities are quite distinguishable from one another. They require different levels of skill and understanding on the part of the individuals conducting the activity. Figure 1 outlines the basic differences between program evaluation and research activities. By understanding and appreciating these differences, those engaged in such activities can plan and conduct the activities in a way that satisfies all of the parties involved.

Figure 1
How Program Evaluation and Research Differ

Variable	**Evaluation**	**Research**
source of idea	school officials	researcher(s)
determination of specific questions	school officials with evaluator	researcher(s)
selection of study program/population	school officials	researcher(s)
selection of data-gathering design	based on constraints placed on evaluator	based on how best to test the hypotheses
determination of data to be collected	based on data needed to answer evaluation question(s)	based on data expected by scientific community to test hypotheses
determination of how data are to be collected	selection based on least obtrusive but acceptable approach	selection based on what scientific community expects
resolving problems	solutions concerned with logistics	solutions concerned with scientific integrity
selection of analysis plan	as simple as possible	complex approaches often desirable
dissemination of results	controlled by school officials	based on expectations of scientific community
funding	externally controlled throughout evaluation	internally controlled after receipt of funds

The Realities of Education

Chapter 21

School Restructuring: How Is the Health Program Affected?

Effie H. Jones, EdD, Nancy S. Miller, PhD, and Len Tritsch, MS

"We believe the system cannot change incrementally...it has to be shocked out of existence," said American Federation of Teachers activist Adam Urbanski. The Kentucky legislature passed a law dissolving the Department of Education. The incoming Virginia state superintendent of education vowed to put his department into a box and bury it. In Dade County, Florida, teachers and principals receive almost a hundred waivers a year from school board regulations and union provisions. This is not business as usual, this is restructuring. And it may go beyond anything we have seen before in American education.

Background

Restructuring began in the early 1980s. What has been called the "first wave" can be dated from the release of "A Nation at Risk" in 1983 by the U. S. Department of Education. The study, commissioned by Terrel Bell, secretary, characterized American public schools as having become less than mediocre in a world ever more demanding of young workers. "If an unfriendly foreign power had attempted to impose on America the mediocre educational performance that exists today," the report stated, "we might well have viewed it as an act of war. As it stands, we have allowed this to happen to ourselves."

These words themselves served as a kind of act of war on the education community, unleashing a frenzy of defensive reform. Between 1983 and 1990, more than 1,000 state statutes affecting schools were passed. The statutes related to academic standards, such as testing, time on task and class size, and also addressed professionalism—introducing competency-based training, certification test requirements and merit pay. Thirty-seven states adopted requirements for certification exams for new teachers. The statutes affected curricula, including initiatives for getting "back to basics," computers and technology, and increased science, math and foreign language requirements. Forty-five states increased high school graduation requirements (Ornstein, 1991).

Presidents Carter, Bush and Clinton and many governors focused their election campaigns on improving education. States made small increases in education spending, supplemented by contributions from private foundations and corporations (Smith and O'Day, 1990). Despite this commotion, little meaningful progress was made. When the nation's governors and President Bush gathered in 1989 for the Education Summit, the problems had worsened. In math and science, U. S. students still lagged behind those in other developed countries, and at least one quarter failed to complete high school. Corporate executives complained that young job applicants lacked basic skills and the intellectual capacity to be trained for the complex workplace of the nineties. State leaders began to acknowledge that their efforts following

"A Nation at Risk" had had little impact on schools.

These early reform efforts are now generally viewed as "tinkering," or providing more intensive doses (longer school days, longer years, more required classes, more testing of students) of the same medicine that failed to work in the past. Harold Howe II of Harvard said of these first-wave efforts: "Somehow much of this activity seems akin to trying to reduce growth in the divorce rate by telling uncongenial couples they must spend more time together" (Lewis, 1989).

While local districts found themselves sinking in the deepening pit of state rules, regulations and constraints that came with the first wave of reform, a group of philosophers and scholars were issuing reports of their own on education. Their observations of schools as they were and ideas for the way they ought to be set the stage for the second wave of reform. Studies included Mortimer Adler's *Paideia Proposal,* Ernest Boyer's *High School,* Theodore Sizer's *Horace's Compromise* and John Goodlad's *A Place Called School.* Each study and analysis was unique, but each shared a common emphasis on the inadequate intellectual focus of schools.

Adler, a philosopher in his eighties, best known for his advocacy of great books of Western Civilization, maintained that all children were educable and those who failed to learn did so because their educators and parents failed to teach them. He focused on three kinds of teaching that should occur: didactic teaching of subject matter, coaching to produce skills, and Socratic questioning in seminar discussions. The results should be the acquisition of organized knowledge, the formation of habits of skill in the use of language and mathematics, and the growth of the mind's understanding of basic issues and ideas.

In *High School,* Ernest Boyer, former U. S. Commissioner of Education and president of the Carnegie Foundation for the Advancement of Teaching, spoke of the loneliness and anonymity of students moving from class to class, lacking contact with adults, a sense of self-worth and a connection to their communities. Theodore Sizer was dean of the Harvard Graduate School of Education when he began studying fifty schools. *Horace's Compromise: The Dilemma of the American High School* documents the "deals" that students and teachers make in high schools to avoid engaging each other so that schools can remain orderly but unchallenging places. Sizer concludes that all secondary courses should emphasize higher-order thinking skills, and that schools should view the student as worker and the teacher as coach. Testing, Sizer maintained, must be in the form of student exhibits that show mastery.

John Goodlad's approach to school reform was based upon the improvement of the preparation of classroom teachers. In his seven-year study of 38 schools, he found "relatively impotent, haphazard, short-term staff development activities," and little attention to and encouragement for long-term planning at the school or the district level. Goodlad concluded that teachers and principals were locked into the status quo with few ways to examine what they teach. His solution was a center for educational renewal, which would join the cultures of the school and the university to shake loose the "calcified programs of both" (Lewis, 1989).

The effect of these studies, and the flurry of foundation-funded reports and experiments that followed, was to create an environment where education could be realistically assessed. Implicit in the reports was an understanding that the reforms of the early and mid-1980s had failed because they never got at the root of the problem. The first wave changes were incremental at best. Many people, inside and out of education, agree with Urbanski that the system needs a transformation rather than incremental change.

What Is the Problem?

The second wave of reform is built upon the common premise that most aspects of schooling are outdated and inadequate. "Our teachers are badly trained, our curricula are unchallenging and our schools are inhospitable workplaces," says Marshall Smith, dean of the Stanford University School of Education (Smith and O'Day, 1990). Roland Barth (1991) claims the major factor leading to depression, school dropout, drugs, jail and suicide is not social class, single parents or lack of medical care, but the school experience itself. Eighty percent of children in the first grade feel good about themselves; by the sixth grade, only 20 percent feel that way; and by high school, just 5 percent have a positive self-image, Barth said. "Are you teachers and administrators prepared," he asked, "to acknowledge your contributions to the problems of schools and to restructure your assumptions and practices?"

Albert Shanker, president of the American Federation of Teachers, has spent his career defending teachers from criticism. It's surprising that he should publicly acknowledge that teachers have not been doing their jobs well. The fault, according to Shanker, is systemic, and reforms of the past failed because they expected too much from teachers forced to work with the cards stacked against them. The key, he suggests, is to recognize that teachers need a much more supportive and flexible system. "What changes," he asked, "do we have to make that take into account the facts that we do not, and will not, have 2.4 million well-qualified people to staff separate classrooms and that if we continue the same structure, we are dooming millions of youngsters to be locked in rooms with very unqualified people?" (O'Neil, 1990).

Defining Restructuring

The second wave of reform seeks to replace the current system of schooling with a fundamentally different one, where almost every aspect has been rebuilt, or "restructured." Specific definitions are elusive, because restructuring is happening in many different ways in many places across the country.

Richard Miller, executive director of the American Association of School Administrators, says restructuring may include "changes in curriculum; modifications in the way we organize for instruction; variations in federal-state-local relationships; increased participation in decision-making; school-based management; reform in systems for preparing, certifying and compensating educators; modifications in governance or financing structures; dealing more effectively with at-risk students; or simply changing the way people think" (Lewis, 1989). Smith and O'Day (1990) define restructuring by describing the characteristics of a successfully restructured school:

> ...a fairly stable staff, made up of enthusiastic and caring teachers who have a mastery both of the subject matter of the curriculum and of a variety of pedagogies for teaching it; a well thought through, challenging curriculum that is integrated across grade levels and is appropriate for the range of experiences, cultures and learning styles of students; a high level of teacher and student engagement in the educational mission of the school—not just for high achievers but for the vast majority of students.

Certain themes characterize restructuring. One is the importance of student outcomes. The bottom line for all changes of structure, roles and responsibilities is what happens in the classroom for each student. The fundamental question is whether a young person learns to think, understand concepts and ideas, apply what has been learned and pose questions and solve problems that have meaning and significance (Sheingold, 1991).

Empowerment is another theme. In restructuring efforts, this usually refers to empowerment of teachers and is based upon the belief that workers are more productive and creative when they have control over their work environments and conditions (Short, Greer and Michael, 1991). This approach assumes that teachers, principals and parents at each school building are best suited to make decisions that affect the education of their children. Another theme of restructuring is engagement, which relates to the importance of students becoming active rather than passive participants in their own learning.

Jane David (1991), whose research on restructuring was sponsored by the National Center on Education and the Economy, is convinced that restructuring is different from reforms of the past because it takes on the entire system and is guided by a focus on results for student learning. Restructuring can be further defined by a look at how separate areas of schooling are affected by it. A report of the National Governor's Association divided restructuring into four areas: curriculum and instruction; authority and decision making; new staff roles and environments; and accountability systems (National Governors Association, 1989).

Curriculum and Instruction

Reformers say the typical curriculum found in American schools is superficial, emphasizing isolated facts and basic skills over problem solving. Students as well as teachers find textbooks and other learning materials boring and remote from real life. Sue Berryman (1991) of Columbia University believes American education is antithetical to what we know about how people learn. For example, Berryman says one misconception is that learners are "passive vessels into which knowledge is poured." In the typical classroom, the teacher transfers knowledge by lecturing to students who have no control over the process. "Passive learning," according to Berryman "has destructive consequences that educators in fact do not want but their ways of organizing learning produce."

Passive learning, which predominates in high school, junior high and upper elementary grades, "reduces or removes chances for exploration, discovery and invention," Berryman says. The student cannot exercise choice, judgment, control, problem formulation and the chance to make mistakes and learn from them. Passive learning creates learners dependent on teacher guidance rather than their own abilities. Furthermore, passive learning leads to "crowd control" problems and produces what Berryman calls "veneers of accomplishment," where students at best come up with correct answers on tests, use correct terms, but evidence no changes in behavior.

Real learning is an active process. It happens when individuals interact with ideas, problems and one another. Real learning is unlikely to happen for quiet children sitting in rows and listening to a teacher lecture. Effective learning, Karen Sheingold of the Educational Testing Service says, "hinges on active engagement of students in constructing their own knowledge and understanding. Such knowledge is not a solitary process; it occurs through interaction with and support from the world of people and objects and through the use of technologies of many kinds" (Sheingold, 1991). The work that students engage in should have a purpose that they understand and find interesting, and learning generally should be individualized. Real learning, Sheingold says, is a dynamic process of understanding knowledge and its human creation.

The direction for curriculum/instruction reform was articulated by Adler, Sizer and others and aims to restructure what students learn and how they learn it. The restructured curriculum develops the higher-order thinking skills of children and calls upon them frequently. Learning is engaging, that is, based on experience and focused on solving real problems individually and in small groups, with teachers serving as coaches. Four conditions are essential for authentic student learning in the restructured curriculum: (1) collaboration with peers and authorities through sustained talking and writing; (2) access to tools and resources; (3) discretion and ownership of the pace and procedures for learning; and (4) flexible use of time (Newman, 1991).

In addition to addressing how children learn, the restructured curriculum puts new emphasis on what they should learn. The concept of "framework" has emerged, which spells out what students should be able to do when they leave school. A framework sets out the desired intellectual themes, topics and long-range objectives. The idea of a framework is based upon the work of professional curriculum groups that began to define what students should study in the early 1980s. At that time, the National Council of Teachers of Mathematics, the National Association for the Advancement of Science and the National Academy of Science started to consider what young people in grades kindergarten through 12 should learn in math and science. In math, for example, frameworks call for introduction of algebra and geometry in elementary school and emphasize critical thinking, problem solving and more extensive use of technology.

Those who designed frameworks intended to create a challenging, coherent and engaging curriculum, including standards and content guidelines based upon the best thinking in their fields. Frameworks provide the structure around which other components are organized, for example, teacher professional development and certification, textbooks and materials and testing instruments (Smith, O'Day and Cohen, 1990). Professional curriculum associations in other content areas are currently developing standards and frameworks to guide instruction of their subject matter.

Where is restructuring of curriculum and instruction headed? The goals for the restructured curriculum are to produce students who can think, solve problems, pose questions and transfer their knowledge to challenging work and life settings. Frameworks for instruction have been developed and adopted in California and are under consideration in Connecticut, New York, Kentucky, Vermont and elsewhere. Discussions are being held in Washington, D.C., about a national curriculum, based on frameworks, with individual states free to adopt the program at their discretion.

This notion of a national curriculum seemed out of the question in 1980, but a 1989 Gallop poll showed that the public was behind the concept, with 69 percent favoring a national curriculum and 77 percent supporting a standardized national achievement test (Smith, O'Day and Cohen, 1990). Widespread concern for the quality of American schools, coupled with growing commitment to restructuring, has made a national curriculum—traditionally resisted as a challenge to state and local control—a real possibility in the effort to reform curriculum and instruction.

Authority and Decision Making

The obstacles facing the reform of educational decision making are overwhelming. "To enact real reform in your school system the board must take steps to break the bureaucratic stranglehold," said Tewel and Holzman (1991), who studied school restructuring for the Panasonic Foundation. The bureaucratic stranglehold extends far beyond the school board and local district administrators. In addition to local district control, every day school personnel face mandates, guidelines, incentives, sanctions and programs constructed by half a dozen different federal congressional committees, the same number of federal departments, independent agencies and the federal courts. Schools are regulated by state school administrators and state legislative committees, boards, commissions and courts. Regional or county offices have jurisdiction in most states. Every level and many different agencies within levels attempt to influence curriculum, materials, professional inservice and preservice, assessment, student policies and special services (Smith and O'Day, 1990).

The list of players in the education decision-making process gives nightmares to reformers intent on shifting decision making closer to the classroom. But this is the direction restructuring is taking. In the past, teachers and principals were held responsible for student progress, but had little control over the variables. "An organizational structure must be created in which those who are charged with getting the job done, namely schools and teachers, have the authority and the support they need to do it," according to Sheingold (1991).

According to Tewel and Holzman (1991), a restructured school district "depends on unleashing the productive potential already present in schools. And it depends on granting school staff members the autonomy to do what they do best—while holding them accountable for the results of their actions." The restructured central office emphasizes goals and outcomes and leaves methods to schools; it allocates funds to schools but allows school personnel to determine how to use the funds. It reconsiders district regulations that conflict with innovation and gives school staff autonomy in personnel decisions. The restructured central office leaves instructional decisions to schools, emphasizes accountability based on education results and establishes clear consequences for education failure.

Breaking the stranglehold of complex and entrenched authority and decision-making patterns of federal, state and local control is extremely difficult. Empowering principals and teachers to make decisions is equally challenging. Short, Greer and Michael (1991) in their three-year study of empowered schools found empowerment to be a slow and evolutionary process. It needed special attention to developing trust at the school and district level and creating environments supportive of risk taking and experimentation. Collaboration does not come easily for school boards, administrators and unions used to adversarial relationships. Special skills and talents are necessary for change to happen. The central administration or school board must be willing to relinquish some of their authority (Smith and O'Day, 1990).

In addition to dealing with the challenges of restructuring authority and decision making on the local level, the major roadblock facing reformers is the state department of education. During the past decade, state departments have become red-tape machines, acting as enforcers for mountains of federal and state mandates, rules and regulations, creating insurmountable obstacles for restructuring schools. That is why Joseph Spagnolo, Jr., assumed the state superintendency of Virginia in a spirit of revolution that inspired unprecedented change in his department and in other states. "We are going to take the department, put it in a box, wrap up a bow around it and bury it," he said, as he began his mission to "free people to do their jobs" by transforming the state's role from regulating and constraining to facilitating the education process at the local school level (American Association of School Administrators, 1991).

Kentucky passed a law recently that dissolved the state department of education, replacing it with a new organization giving far more responsibility to schools to make instructional decisions (Lally, 1991). Other states are moving in similar directions. But with the weakening of state control of schooling come new expectations for accountability. While the trend is toward giving localities more leeway in how they organize resources for instruction, states also are moving toward setting more demanding standards for outcomes for student learning. They are working to devise systems of rewards and punishments for schools that will be linked to the accomplishment of specified outcomes. The issues of authority and decision making continue to evolve as states struggle with local school districts to bring decision making closer to the student but, at the same time, maintain the necessary authority.

Conflict between local districts and state departments of education is not unique to current restructuring efforts. However, the outcome of the particular compromises negotiated around decision making and authority will determine the success of restructuring. Gordon Ambach, former New York State commissioner of education and current executive director of the Council of Chief State School Officers said:

> The tension between state and local levels regarding power and control always has existed....The question is whether we can set an appropriate mix of responsibilities between the two levels. We must make sure we enable the creative force, the creative power and the flexibility to teach in order to effectively operate schools, with the assurance of a clear set of goals and objectives for all students and districts.... How we work that balance is the critical issue. (Lally, 1991)

New Staff Roles and Environments

Teachers have usually been left out of the decision-making process for all but the most insignificant matters. This practice is inconsistent with restructured schools, where empowerment, or participatory decision making at the school site, is basic. But expectations for teachers in restructured schools should not be rigid. Some teachers prefer to be left out of decision making. When Albert Shanker suggested that a new structure be developed because every teacher in every classroom cannot be equally well qualified and talented, he implied that the new structure means differentiated roles for individual teachers. Teachers and others act as coaches, providing guidance to students based on the teachers' own strengths and experiences, and calling upon the help of technology, paraprofessionals and others. New roles mean that teachers support and coach one another and maximize one another's talents. But all this can only happen within the context of an improved work environment.

Few professional groups face the spartan, depressing and often chaotic working conditions of teachers. Most teachers have no space where they can work, meet, talk or use the telephone. Many do not even have a place to leave their own materials and must move from room to room with armfuls of books and papers, racing the clock and crowds of students. "A critical element of the second wave of reform is the issue of how to enhance the professionalism of teachers...certainly, it will be impossible for major changes in the quality of schooling to take place if the quality of teacher workplaces continues to be as shabby as now" (Smith and O'Day, 1990). Teachers, Smith and O'Day note, have little access to resources or services to encourage professional creativity—including libraries, support for new teachers and time for reflection. The extraordinary thing about these conditions, according to Smith and O'Day, is how little money it would take to overcome them.

Mary Hatwood Futrell, past president of the million-member National Education Association, said that restructured schools must do the following for teachers (Lewis, 1989):

- Ensure that teachers have the resources they need to perform effectively, including time, space, materials, technical assis-

tance and opportunities for consultation with their peers.
- Clarify goals, expectations and responsibilities of all school staff.
- Increase the frequency of interaction between teachers and building-level administrators by encouraging principals to be visible and available.
- Seek teacher advice on policies and practices that will create a more professional workplace.

Restructuring of education depends not only on improving working conditions of teachers, but on bringing necessary skills to the current work force and to those entering the profession. Inservice efforts must be developed in tandem with restructured curriculum frameworks to prepare poorly trained teachers to work with new and challenging subject matter and new instructional strategies. Teachers also need to become skilled in participatory decision making and other aspects of school-based change. States may find that bringing training resources to localities and fostering teacher networks will be their most important service as they strive to transform their agencies.

The National Board for Professional Teaching Standards was established in 1987 in response to *A Nation Prepared,* issued by the Task Force on Teaching as a Profession of the Carnegie Forum on Education and the Economy in 1986. This report focused on the quality and conditions of the teaching profession as critical to improving education. The purpose of the board, composed of 64 members, mostly teachers, is to set standards for what teachers need to know and should be able to do. In 1993, the board began to grant its first certificates to teachers who voluntarily apply. Concurrently, some states established their own boards with similar criteria that may become mandatory.

Accountability Systems

Who is ultimately responsible for student learning and how do we know if students have actually accomplished objectives? Since the bottom line for restructured schooling is student achievement, questions of accountability and assessment are basic. As decision making and authority move closer to the student, so does responsibility for success—the buck stops with the teachers and principals. But how should success be judged? Testing of students has been one of the most confused aspects of traditional schooling because the purpose has rarely been clear. Linda Darling-Hammond (1991) of Columbia University Center for Restructuring in Education says testing in the United States was designed to rank students cheaply and efficiently and was never meant to support instruction. The Ford Foundation estimates that American education spends about $100 million annually on tests of questionable value and takes from students 20 million days in time that might otherwise be spent on instruction (Anrig, 1992).

Tests for restructured learning must be entirely revamped, according to a report from the National Association of Secondary Principals, "Beyond Standardized Testing." Restructured tests should offer students opportunities to demonstrate true mastery of subjects by providing more than one format, give students enough time to perform serious cognitive tasks, test what is learned and how students arrive at answers for complex problems, and serve as a guide for instructional planning (Lewis, 1989). Above all, the purpose for accountability systems must be made clear.

In this respect, assessment restructuring needs to be closely linked to curriculum restructuring. Gregory Anrig, president of the Educational Testing Service, says that clear and challenging standards for learning will point the way to clear and accurate assessment. He expects that in the coming decade, tests will change more than they have in the previous fifty years. New guidelines issued by the U.S. Office of Educational Research and Improvement suggest that multiple indicators for students, teachers and administrators be used, and that indicators be linked with state or district goals and emphasize higher-order skills (Lewis, 1989).

The state of Vermont became the first to adopt such a system. In 1992, the Vermont Department of Education began assessing fourth through eleventh graders in writing and math using a variety of test results, including portfolios of writing and math work. Vermont and other states such as California, Connecticut, Maryland and New York are piloting new kinds of tests based on state-developed outcomes. Their assessments will include portfolios, projects, essay exams, scientific experiments, exhibitions and performances (Darling-Hammond, 1991). These states hope that the new assessments will make it easier to identify schools and districts in need of help in the form of effective technical assistance.

David Hornbeck, former state superintendent in Maryland and consultant to Kentucky and Iowa for the restructuring of their accountability systems, said: "We wanted to put in place a system where you would have fewer rules and regulations unless you did poorly. Then you would have rules and regulations" (Lally, 1991). The challenge ahead for states is to redefine the purpose of testing programs, design instruments consistent with those purposes and build in appropriate responses to success or failure.

What Does Restructuring Mean for Health Education?

Restructuring has created some opportunities as well as challenges for comprehensive health education. It is a time of opportunity because states and localities are becoming actively engaged in setting goals and objectives for student learning. Nothing is more relevant to health education than a focus on behavioral outcomes and higher-order thinking skills. But there are some potential roadblocks as well; the curriculum train may have already left the station, with too few health education advocates aboard. School-based participatory decision making and freedom from state and federal regulations may also present some barriers. Controversial health issues are frequently avoided by local policy makers, educators and parents without strong leadership and support from the superintendent or state or federal requirements.

Goals and Objectives for Learning Outcomes

It's no coincidence that the kind of education that promotes healthy young people is the same kind of education called for to promote intellectually capable ones. *Code Blue*, a report from the National Commission on the Role of the School and the Community in Improving Adolescent Health convened by the National Association of State Boards of Education (NASBE), recommends that to be healthier places schools must become more personal, with smaller classes and grade levels, more attention to individual differences, and better working conditions for teachers and children. Healthy schools, the report says, engage students with curricula that develop higher-order thinking, using strategies that foster interaction and collaboration. Students who are not engaged are far more likely to fall behind and leave school before graduation, two conditions closely associated with increased health risks, including substance use, early sexual activity and teen pregnancy (National Committee on the Role of the School and the Community in Improving Adolescent Health, 1990).

Students who can think critically are more likely to make better decisions about their own lives. Stanley Pogrow, developer of the Higher Order Thinking Skills Program (HOTS) for fourth through sixth graders, found in his research that intensive work on critical-thinking skills not only led to improvements in reading and math but in classroom behavior (Pogrow, 1988). Children who are good critical thinkers learn to associate cause and effect, examine ineffective strategies and persist in finding solutions to problems. Such children are better prepared to evaluate risky situations and avoid dangerous behaviors.

Many conditions for better health are intrinsic in learner outcomes that emphasize higher-order thinking. In this respect, health education advocates need to do nothing more than support the work in progress to develop challenging frameworks for student achievement. But there are skills and information necessary for lifelong good health that go beyond those required for sound intellectual development. To stay healthy, children need skills in coping with group pressure, resolving conflicts and finding information and resources to solve health problems. They need specific knowledge and understanding relevant to disease and accident prevention, family life and sexuality, drug and alcohol abuse, violence, mental health and nutrition (National Commission on the Role of the School and the Community in Improving Adolescent Health, 1990).

As state and national groups come to closure on curriculum frameworks, are these needs being addressed? Are health advocates playing active roles in state and national task forces and committees on curriculum frameworks? The answer to these and related questions is no, not nearly enough. And it's a good bet that the more controversial health outcomes—those dealing with contraception, sexually transmitted disease and family life—will be diluted, if they are present at all, in the interest of getting consensus on frameworks. The question of controversy and health outcomes leads directly to the next concern, participatory decision making and politically sensitive positions.

Local Control Versus What Kids Need to Know About Health

Controversial issues in health education are traditionally resolved by deciding what is comfortable for policy makers, teachers, principals, community groups and parents. Last of all comes concern for the needs of children and youth. HIV prevention is a case in point. Reliable studies tell us that at least 77 percent of females and 86 percent of males are sexually active by age twenty. With very few exceptions, school boards, school administrators and parents oppose explicit education about dangerous sexual practices and condom use and the availability of condoms in schools. Their opposition comes from fierce adherence to personal values and morals, but flies in the face of what is known to be true about the sexual behavior and HIV risk-status of teens.

Bringing decision making closer to the school—as restructuring does—may in fact make adoption of controversial health education outcomes even more difficult. It gives the adults who make decisions for students a greater opportunity to impose their own values and standards on young people, even when research indicates that those values and standards no longer direct the behavior of youth. Unless students as well as health advocates are included in significant ways in participatory decision making, truly comprehensive health education outcomes will never be achieved.

In focus group interviews with middle school students conducted by health researcher Jim Clay in Seattle, students generally reported being left out of almost all decision making in schools; and this was a continuing source of frustration to them. With regard to health education, they had these suggestions, which were rarely solicited by their teachers and administrators (Clay, 1992):

- Give students some authority to establish the topics to be covered.
- Present sensitive material, specifically sex education, in small

groups, occasionally gender segregated.
- Allow more "discussions" and eliminate some "lectures." Allow students to set topics, but have an adult facilitator keep the groups from "getting out of control." Allow more time for more indepth discussion.
- Make provisions for ensuring privacy and confidentiality.
- Have teachers who can relate to the experience of a young person in the world of the nineties.
- Consider student-run peer education programs.

It is not likely that participatory decision-making committees will make room for students unless local leaders strongly advocate for them. It is not likely that controversial health topics and approaches will find a place in restructured curricula. These events become even less likely in view of the trend toward providing waivers and exceptions to state and local regulations and negotiated agreements in the name of participatory decision making. Will state-required health education mandates for HIV prevention or sexuality education be dissolved as communities use restructuring to circumvent uncomfortable requirements?

Other Issues to Watch

If restructuring is here to stay, health advocates need to be aware of other issues as well. Assessment, for example, presents some questions. As reformers develop more instructionally relevant forms of testing for student learning, such as portfolios, essay exams and work exhibits, how can health outcomes be demonstrated? Health educators know that in the final analysis, behavior change is the goal. The only way to know definitively if HIV prevention education has been successful is if students avoid acquiring the virus. Likewise for teen pregnancy prevention—either a young woman becomes pregnant before the age of twenty or she does not. Performance on tests of cognitive skills, even higher-order cognitive skills, cannot demonstrate that the desired health behavior has been acquired.

A current study by the American Association of School Administrators, "Options for Pre-Teens," is assessing the success of a school-based prevention program in reducing teen pregnancy and other risky health outcomes. The evaluation component, which costs almost $100,000 annually, will follow children for eight years to determine the effectiveness of the intervention they receive. Although school districts and states could never routinely provide for this kind of evaluation, it is really the only way to know with certainty that behavior has changed and that desired outcomes have been achieved.

Will restructuring school districts and states accept that some health outcomes cannot be assessed, because their impact is long-term in nature? Will they find a way to measure the skills and abilities that promote healthy life styles—such as resisting peer pressure, resolving conflict and making sound decisions—as a substitute for seeking definitive results? Irresponsible sexuality, substance use and violence are problems of society as a whole and cannot be solved by schools alone. Locally controlled schools will hesitate to take on such complex problems when many of the variables are beyond their control. The baby may go out with the bath water, as districts fearful of ever-increasing accountability avoid selecting learning outcomes that are not likely to show clear success.

Recommendations

In the best of scenarios, the school restructuring movement that began in the mid-1980s will forever change American education into a process that truly serves the needs of children and youth. There have been some promising signs, but formidable obstacles clutter the way. In the majority of schools in the United States, it is still business as usual.

To nurture restructuring yet ensure that comprehensive health education is not left out, health advocates need to be vocal and visible on local decision-making committees, state and regional task forces and in national restructuring initiatives. The following recommendations should be voiced whenever and wherever restructuring is underway:

- The individual and collective health of students and staff must be a district and school priority.
- Health education must be skill-based to assist students in becoming responsible for their own health.
- Health curriculum content and activities should be based on input from students.
- Sufficient health instruction time must be provided to allow for developing and changing behavior.
- Health teachers need to be skilled, enthusiastic, caring people who place a high priority on health in their own lives.

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Chapter 22

Categorical Funding in a Comprehensive World

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Is funding for specific categories generally covered under comprehensive school health education a benefit or a hindrance to quality school health education? Responses to this question vary from agency to agency, state to state and school to school.

Categorical funding for programs often implies a single purpose for the application of those funds. In many cases, categorical funds are restricted by legislation or regulation from being used for anything other than a narrowly defined purpose. The restrictions are due to the need for accountability and the need to measure effectiveness of the funding as it relates to the program goals. A comprehensive approach folds together all or a portion of categorical funding to allow for a broader application.

Many federal, state and community agencies focus on single concerns, such as teen pregnancy; tobacco, alcohol and other drug use; or suicide. Is it more effective in the long run for programs to become less segmented and to address multiple issues at one time?

The categorical focus of institutions is deeply ingrained in their professional training, values, goals and sources of funding (Kirby, 1990). A categorical focus has the following advantages:

- A single mission can enhance motivation.
- It can enable institutions to develop expertise in that specific area and to devote all their resources to a particular health concern.
- It can reduce the chances that efforts will be diluted by being spread too thinly among too many concerns.

On the other hand, integrated approaches that focus on the whole child:

- recognize the interrelationships among risk-taking behaviors
- facilitate effective methods of reinforcing social skills or messages applicable to multiple risk-taking behaviors
- promote cooperation among agencies dealing with related issues
- close some of the existing gaps in programs and services

The rationale for comprehensive school health education is based on public health and pragmatic considerations. The range and prevalence of behavioral health problems among U.S. children dictates that health programs must be broad in scope. The need for comprehensive school health programs is apparent, but many questions remain unanswered.

Although several comprehensive health curricula have been evaluated, many of the assumptions regarding the effectiveness of comprehensive school health education are based on findings from categorical programs. It is unclear, for example, if the effects observed for drug and nutrition education programs taught as categorical programs are different when those topics are taught within a comprehensive framework. Some might argue that incorporating categorical programs with comprehensive school health education will attenuate effects, since the focus on any one behavior or health issue will be diminished. However, it also could be argued that program effects will be enhanced, since comprehensive programs provide synergistic reinforcement and application of essential social skills across a wide range of topics (Resnicow, Cherry and Cross, 1993).

The emerging questions focus more on how much to integrate and how to integrate. As stated in *Creating an Agenda for School-Based Health Promotion: A Review of Selected Reports* (Lavin, Shapiro and Weill, 1992), a more comprehensive, integrated approach is needed. Enough is known about what works and what doesn't work in addressing health problems to implement more effective programs. Many programs have been successful, although some have been too fragmented, targeting categorical symptoms rather than common antecedents. More collaborative programs and policies need to address the underlying causes of problems.

As of 1990, 42 states required that health education be provided in schools; all but seven required it for both elementary and secondary school students. In addition, 28 of the 42 states mandating health education specified that they required comprehensive health education (National Association of State Boards of Education and Council of Chief State School Officers, 1990).

In states where comprehensive school health education is not required, instruction in categorical areas such as drug prevention education, HIV prevention education and nutrition education is sometimes presented in isolation. This more limited approach generates less conflict than a comprehensive approach to health education. In states where comprehensive school health education is required, categorical programs often compete for professional development and classroom time as teachers attempt to cover numerous health topics and skill areas.

Some schools have staff who identify with a particular health issue, have had professional development in a certain area, or feel that time devoted to health issues should be concentrated on a few topic areas, allowing for repetition and reinforcement at each grade level. Other schools are committed to a broad-based program that addresses the multidimensional needs of students. These schools prefer to teach a wide variety of topics, with periodic review and reinforcement. These situations represent a wide range of ideas and programs along the spectrum from categorical to comprehensive.

The challenge facing states and local schools is to identify ways to integrate categorical funds into a comprehensive "umbrella" effort—to make best use of limited resources, avoid duplication and reinforce learning so that all students can reach their greatest health potential. The ultimate aim is to address in the most effective way possible the underlying behaviors that transcend categorical issues and either promote or undermine the health of our youth.

The National Level

School health is receiving increased attention from federal legislators and national educational and health-related organizations and associations.

Federal Initiatives

The federal government typically has organized its programs around categorical initiatives. Major legislative initiatives that provide funding to states and schools for health-related programs include:

- U.S. Department of Agriculture, Nutrition Education and Training Program

- U.S. Department of Education, Drug-Free Schools and Communities Act
- U. S. Deparment of Health and Human Services, Centers for Disease Control and Prevention State and Local Comprehensive School Health Program to Prevent Important Health Problems and Improve Educational Outcomes

The U.S. Congress enacted the Nutrition Education and Training (NET) Program in 1977 to encourage effective dissemination of scientifically valid information to children participating, or eligible to participate, in school lunch and related child nutrition programs. The U.S. Department of Agriculture (USDA) administers the program through grants to state agencies for the development of comprehensive nutrition information and education programs.

According to the NET Strategic Plan released by the USDA (1992), the accomplishments of the program are significant. In the development of the strategic plan, the NET program has recognized the importance of comprehensive school health education. Objective one directs the program to increase to at least 75 percent the proportion of the nation's schools that provide nutrition education as part of school health education, as part of an interdisciplinary nutrition education curriculum or through other means, by the year 2000.

One of the recommended strategies to meet this objective is to promote the inclusion of a nutrition component in the K-12 comprehensive health education curriculum offered in states and in all other curricula, as appropriate. The NET program offers an ideal opportunity for coordination of nutrition education within the comprehensive school health education framework.

The Drug-Free Schools and Communities Act establishes programs of drug use education and prevention. These programs are coordinated with community efforts and resources through federal financial assistance to states for grants to local educational agencies (LEAs) and community-based organizations. The act also provides for development, training, technical assistance, coordination of related activities, and funding to institutions of higher education for student and teacher training programs in drug abuse education and prevention. The act has been expanded to include instruction relating to self-esteem, decision making and risk taking, stress management techniques and assertiveness.

In 1987, the Centers for Disease Control and Prevention (CDC) was authorized under the Public Health Service Act to establish cooperative agreements with the nation's state and local education agencies to help them implement health education programs designed to prevent HIV infection among the nation's youth. In 1988, every state department of education was funded. To varying degrees, state education agencies (SEAs) and funded LEAs have implemented HIV prevention education activities as part of more comprehensive school health programs.

The CDC recognizes that HIV prevention education is only one component of comprehensive school health education and that such education is one part of a comprehensive school health program. Education agencies and health agencies each have specific responsibilities and authority for strengthening comprehensive school health policies and programs to prevent important health problems among youth. The CDC is committed to working collaboratively with state and local education and health agencies to help them apply their collective abilities and resources for the implementation of effective comprehensive school health education (CDC, 1992).

In 1993, the CDC expanded the scope of its program by providing funds to states for the prevention of important health-risk behaviors and problems, including:

- tobacco use
- dietary patterns that result in disease
- sedentary lifestyle
- sexual behaviors that result in HIV infection, sexually transmitted disease and unintended pregnancy
- behaviors that result in injuries
- alcohol and other drug use

The CDC provided funding to five states for the building of state education agency and state health agency infrastructures to better coordinate comprehensive school health programs.

Amendments have been proposed in the U.S. Congress to broaden the scope and potential effectiveness of already existing health-related legislation. In 1992, an amendment was drafted by Senator Jeff Bingaman (D-New Mexico) that would have allowed states, LEAs and schools to use funds appropriated under the Drug-Free School and Communities Act for sequential, comprehensive school health education, as long as alcohol and substance abuse education was a significant component of the curriculum. The legislation was never debated before the session was adjourned. But this effort reflects the growing interest of Congress in the area of comprehensive school health education.

In addition to categorical funding, Congress has also provided funds for grants for comprehensive school health education to states and local education agencies in conjunction with universities, educational centers, national associations and others. Since 1989, the U.S. Department of Education Fund for the Improvement and Reform of Schools and Teaching office has been authorized to provide $3 million to almost $4.5 million yearly in grants for programs to encourage the provision of comprehensive school health education for elementary and secondary students (U.S. Department of Education, 1992). Priority areas for the grants include:

- strengthening and expanding comprehensive school health education curricula that integrate key school health education concepts into all aspects of the school program
- training of teachers and other appropriate school personnel in comprehensive school health education
- involving schools, parents and communities in planning and implementing comprehensive school health education

These federal initiatives reflect the beginning of a slow shift from categorical legislation to looking at a more comprehensive approach to meeting the multidimensional challenges of our youth's health. They have bipartisan support, with key leadership provided by Senator Bingaman and Senator William Cohen (R-Maine). "Today, children and adolescents are endangered primarily by their own behavior...effective health education programs in schools can be invaluable in helping our children to avoid high risk behavior and develop healthy habits that will carry over into adulthood" (Cohen, 1992).

The Need for Coordination

The need for greater coordination of federal health-related initiatives was illustrated by a survey conducted in 1991 by the Office of Disease Prevention and Health Promotion, Department of Health and Human Services (DHHS). The survey identified more than a hundred separate school health promotion and education programs administered by seven different federal departments and two independent agencies. Unfortunately, survey results indicated little or no coordination among these programs.

In November 1991, the U.S. Senate Subcommittee on Oversight of Government Management conducted a hearing on "Healthy Schools, Healthy Children, Healthy Futures: The Federal Government's Role in Promoting Child Health Through the

Schools." The hearing examined whether the government was doing enough to promote child health through the nation's schools, looked at how the various federal agencies coordinated their efforts to avoid fragmentation and duplication, and explored ways current efforts might be improved.

Through presentations from representatives of the U.S. Departments of Education, Agriculture and Health and Human Services, the need for better coordination among the dozens of federal school health programs became apparent. Panelists from three states—Maine, Michigan and West Virginia—presented their views on the need for more coordination of federal school health efforts and better communication at both the federal and state levels.

As a result of recommendations made at the hearing, the Healthy Students-Healthy Schools Act was introduced in the U.S. Senate in 1992. This act would establish a task force to coordinate federal health education programs and set up a comprehensive school health education office to help state and local education departments develop and maintain comprehensive school health education programs.

The measure would create an advisory council of experts to evaluate federal programs and to set forth realistic, achievable "Healthy Students-Healthy Schools Goals" for schools nationwide. State and local education departments could apply for incentive grants to encourage their schools to meet these goals. The Healthy Students-Healthy Schools Act has garnered strong support from many legislative and numerous national health and education organizations and agencies (Cohen, 1992).

The Interagency Committee on School Health was a positive outgrowth of the Healthy Students-Healthy Schools Act initiative. The goal of the Interagency Committee is to improve communication and planning and develop new ways to improve federally supported or conducted school health programs. This policy-level committee is comprised of representatives from the U.S. Departments of Education, Health and Human Services, Agriculture, Defense, Justice, the Interior, Labor and Transportation, the Environmental Protection Agency and the Consumer Product Safety Commission. The members work to eliminate duplication and improve the effectiveness of programs aimed at improving children's health. The committee deals with issues such as school health education, school nursing and health services, school food service programs, physical education and physical fitness, coordination of school and community health promotion efforts and school counseling programs.

The National Coordinating Committee on School Health (NCCSH), established in 1993, brings together leaders from nongovernmental national health and education organizations committed to promoting the health and educational achievement of children through school-based and school-linked programs. The goal of NCCSH is to promote communication and collaboration not only among the national organizations but also between the organizations and the federal officials with responsibility for school health programs.

The committee recognizes that the need and the opportunity have never been greater for fostering the link between the health and educational achievement of children and that schools cannot fulfill the educational needs of students until each child is safe, well nourished and healthy. Similarly, schools cannot promote the mental and physical health of students without also providing them the necessary knowledge and skills. Both the Interagency Committee on School Health and the National Coordinating Committee, cochaired by the Assistant Secretary for Elementary and Secondary Education and the Assistant Secretary for Health, are advocating for all components of a quality comprehensive school health education program in the nation's schools.

The Federal Interagency Ad Hoc Committee on Health Promotion Through the Schools was established in 1983 as a staff-level committee to promote communication between federal offices and agencies with programs related to school health. Since 1990, it has been cochaired by the U.S. Department of Education Comprehensive School Health Education Program and the Department of Health and Human Services Office of Disease Prevention and Health Promotion. In 1992, the committee, working with the DHHS, published *Healthy Schools: A Directory of Federal Programs and Activities Related to Health Promotion Through the Schools.* This directory provides information about federal programs that may offer useful resources, including publications and other materials, to address various components of school health programs.

The committee noted three primary uses for the compilation of federal programs and activities:

1. to disseminate information about federal programs related to school health to promote coordination and collaboration, reduce duplication, and identify and fill gaps in programming
2. to respond to increasing interest from Congress regarding the scope of federal activities related to school health
3. to aid those working at the level of the school district, individual school and classroom, who are planning, implementing and evaluating school health programs

National Organizations

Numerous national organizations and associations support a comprehensive approach to school health and have actively worked with the federal government as advocates. Providing leadership in this effort is the National School Health Education Coalition (NaSHEC), which was established in 1982. More than 65 national health-related agencies and organizations and state-level coalitions have joined together to achieve the goal that every child in kindergarten through grade 12 shall receive a comprehensive school health education experience. The former NaSHEC chair, Maureen Corry, provided valuable testimony at the 1992 Senate Oversight Committee meeting on Promoting Child Health Through the Schools. Corry's testimony focused on NaSHEC's belief in the value of a comprehensive versus a categorical approach to school health education in helping children establish healthy attitudes, beliefs and habits that last a lifetime (Corry, 1991).

NaSHEC publishes the *Comprehensive School Health Education and Coalition Building Resource Guide* (1993). The guide is developed with support from a cooperative agreement with CDC, with input from NaSHEC member organizations and school health education professionals in state education and health agencies. This guide is a source for materials available to promote comprehensive school health education in states and collaborative efforts among state agencies. It lists national- and state-produced materials addressing comprehensive school health education, coalition building and collaboration, and school-age youth. NaSHEC also assists with the development, maintenance and strengthening of state-level coalitions that promote comprehensive school health education.

The American Cancer Society (ACS), through its process to determine which activities would have the most impact on cancer morbidity and mortality, discovered that the organization needed to do more during the 1990s to help move along the agenda for comprehensive school health education. Specifically, the society identified comprehensive school health education as one of six core priorities in which to work to promote education about cancer prevention and control as part of its national initiative.

National goals specifically address reducing the use of tobacco and encouraging nutrition patterns that stress low-fat and high-fiber diets. The means of reaching these behaviors is clearly stated—increasing the institutionalization of comprehensive school health education at the state and local levels. In 1992, the ACS awarded six demonstration project grants to support the development and implementation of long-range plans to support state and local comprehensive school health education program efforts.

In 1992, the ACS also convened a national workshop to develop a practical collaborative plan to institutionalize comprehensive school health education for all school-age children. Participants from more than forty national associations and agencies, representing public and higher education, medical fields, voluntary health agencies, public health agencies, municipalities and the federal government, were charged with the responsibility of developing a National Action Plan for Comprehensive School Health Education (American Cancer Society, 1993). This plan is designed to address the areas of public policy; awareness; parent, family and community involvement; educational outcomes and standards; professional preparation and practice; and resources. Activity and progress of national organizations striving to achieve the goals of the national action plan will be compiled and published.

The ACS is also collaborating with the National Cancer Institute in the American Stop Smoking Intervention Study Trial (ASSIST), along with state health departments and other voluntary organizations, to develop comprehensive tobacco programs in 17 states. The purpose of ASSIST is to coordinate strategies by building coalitions to design statewide plans to reduce the percentage of smokers by the year 2000. ASSIST has identified educational systems as one of the five major focus areas. Two main objectives for education are that 100 percent of schools serving kindergarten through grade 12 will be tobacco free and will use an effective tobacco use prevention curriculum. The curriculum may be included as part of comprehensive health education in kindergarten through grade 12.

The American Lung Association (ALA) has a long history of involvement with school health education. The association supports a comprehensive school health program for all schools that provides comprehensive health instruction and adequate health care services delivered within a healthy environment. The ALA recognizes that comprehensive health education programs offer the most effective way for schools to teach the promotion of lung health and the prevention of lung disease due to smoking, air pollution and occupational hazards. The association supports health instruction composed of a comprehensive and sequential series of health-related activities, both cognitive and affective, integrated into other areas of the regular school curriculum and taught at each level, from kindergarten through grade 12 (American Lung Association, 1984).

The National Parent Teachers Association (PTA) has been very active in supporting education that promotes the emotional, intellectual, physical and social health of children and has been a strong advocate for that position at the national level. The National PTA believes that a comprehensive school health education program includes philosophy and goals established by local school boards in partnership with parents, students, educators, community health care providers and others; health services; and a health curriculum that is comprehensive and sequentially developed. Health instruction should be age- and culturally appropriate, should reflect current health issues of the community and should be taught by qualified educators.

The National PTA believes that comprehensive school health education programs are an essential link in the health education/

health care chain. To fulfill the responsibility of offering educational opportunity to all children, educators need to recognize and deal with all health needs as they affect the schools. Therefore, the National PTA advocates that schools form partnerships with parents and the community to provide effective, comprehensive school health education programs (National PTA, 1992).

The need for cooperation between the health, human services and educational programs available to children is becoming increasingly clear. Indeed, two recent initiatives, the National Health Promotion and Disease Prevention Objectives contained in *Healthy People 2000* (U.S. Department of Health and Human Services, 1991), and the National Education Goals outlined in *AMERICA 2000: An Education Strategy* (U.S. Department of Education, 1991), focus attention on the important interrelationships between health and education.

Meeting National Objectives and Goals

The National Health Promotion and Disease Prevention Objectives provide a national framework for reducing preventable death and disability, enhancing quality of life and reducing disparities in the health status of populations within the United States. To support the accomplishment of these objectives, the U.S. Public Health Service has assumed that all requests for proposed program announcements and other funding mechanisms must explicitly identify the specific objectives linked to those programs. The Assistant Secretary for Health conducts regular progress reviews with the lead agency for each set of objectives to assess the nation's progress toward accomplishing the objectives. Fifteen of the *Healthy People 2000* objectives are directly achievable by schools, and schools will play important roles in achieving nearly a hundred additional *Healthy People 2000* objectives.

The National Education Goals address the health aspects of school readiness and the provision of safe, alcohol- and drug-free school environments. The first of the National Education Goals set out in *AMERICA 2000* calls for every child in the United States to "start school ready to learn." Successful school health programs can help children in elementary and secondary school maintain this healthy start. Goal 6 designates that by the year 2000 every school in the United States will be free of drugs and violence and will offer a disciplined environment conducive to learning. One objective under this goal specifies that the K-12 drug and alcohol prevention education curriculum should be taught as an integral part of health education.

There are many important publications from national educational and health organizations and agencies that support a comprehensive approach to health education rather than focusing on a single categorical concern. These publications include *Healthy Kids for the Year 2000: An Action Plan for Schools* (American Association of School Administrators, 1990); *Code Blue: Uniting for Healthier Youth* (National Commission on the Role of the School and the Community in Improving Adolescent Health, 1990); *Beyond the Health Room* (Council of Chief State School Officers, 1991); *School Health: Helping Children Learn* (National School Boards Association, 1991); and *Fateful Choices: Healthy Youth for the 21st Century* (Hechinger, 1990). All of these important documents address the interconnectedness of health and educational achievement.

The National School Boards Association has also published a series of twelve comprehensive school health *Issue Briefs*. The series details strategies for policy development and implementation, health instruction, health services, healthy school environments, and the need for cooperative planning and collaboration in reaching national health and education goals through comprehensive school health programs. The issue on Health Instruction (National School Boards Association, 1993) specifies eleven topics to be included in a comprehensive school health curriculum. The brief suggests that when developing or revising a curriculum, it is important to be certain the curriculum is comprehensive and covers all the topics important to developing healthy attitudes and behaviors toward oneself and others. The brief recommends that the curriculum be flexible enough to encompass emerging as well as current health concepts and issues.

The International Level

The health and well-being of children and youth must be a fundamental value for all countries. In addition to longstanding health and nutritional issues, urgent worldwide health and social problems, including HIV/AIDS and increasing substance and alcohol abuse, have underscored the need for collaboration among young people, families, schools, agencies, communities and governments in taking a comprehensive approach to school-based health education.

To improve health and education at the international level, representatives from the Unites States joined health and education experts from 16 nations at a joint World Health Organization (WHO)/United Nations Education, Scientific and Cultural Organization (UNESCO)/United Nations Children's Fund (UNICEF) Consultation on Strategies for Implementing Comprehensive School Health Education/Promotion Programs. The consultation arrived at a consensus on a comprehensive approach to school health education and guiding principles for action.

The principles determine that developing and strengthening a comprehensive school health education program requires the following:

- political will and commitment, as well as policy, legislative and fiscal support at international, national and local levels

- integration into national education and health policies
- strategies for education and health professionals to work together to advance healthy development of children worldwide

The international consultation concluded that if comprehensive school health education is to be a priority in all nations, advocates and policy-makers must reach a common understanding of the issues involved and consensus on direction and goals, resources required and benefits to be achieved. Of particular importance is a collaborative arrangement between education and health (International Union for Health Education, 1993). Creative advocacy efforts include:

- gathering all available data on health problems and behaviors of children, such as smoking, substance use and teenage pregnancy, as well as evidence on effective interventions in schools
- organizing and presenting data to policy- and decision-makers in a clear, understandable, concise and persuasive manner
- forming alliances with initial stakeholders (e.g., parents, teachers) and influential groups and with other interested parties such as media, professional organizations, voluntary nongovernmental organizations and mass organizations

The State Level

To a certain extent, state agencies and their respective programs mirror the organization and goals of federal agencies. In many states, decisions around management of funding from the three major federal categorical sources—Drug-Free Schools and Communities, State and Local Comprehensive School Programs to Prevent Important Health Problems and Improve Educational Outcomes, and the Nutrition Education Training Program—are made independently, without communication and consideration for potential blending of goals and activities. However, in a number of states, people responsible for categorical programs are working together to develop and implement initiatives that cross the barriers and are mutually beneficial yet maintain the integrity of the individual program goals.

An informal survey of state health education directors, along with follow-up discussions was conducted at the Society of State Directors of Health, Physical Education and Recreation annual meeting in 1992 (Wilbur, 1992). The survey and subsequent conversations revealed many differences in how states use categorical funds. Differences appear to be correlated to the level of collaboration among the decision-makers in the various state-level programs. The continuum of collaboration ranges from a coordinated approach for overseeing categorical funding and related programs to separate offices working independently, with no communication among the related health education programs.

When discussing cooperation and collaboration at the state level, it is important to consider who controls the funding, and, therefore, the programs, and what the underlying philosophy is on categorical and comprehensive approaches. If various components of health education are more effectively taught through a more holistic approach, categorical funding hurts this effort. Two or more entities merely saying they are working together, cooperating or collaborating doesn't make it so! In a comprehensive effort, individuals must do more than share information—they must understand the philosophy, mission, priorities and personalities involved.

Many state education agencies have created their own monsters through their hiring practices. States want to hire the best person they can find—usually a person with experience in the particular field. This person may prove to be a "categorical zealot," whose only focus is on one particular area. It is very hard to change a categorical zealot into a comprehensive visionary. This is true at the local as well as the state level. Efforts toward a more comprehensive program are commonly met with complaints such as "It will water down my program" or "I don't have enough money to do my *own* job." Categorical zealots tend to believe that the program they work in is "their program" and the money they use is "their money." Anything designed to change the status quo is seen as an infringement on their personal turf (Sartorius, 1992).

Differing directives from the federal level also tend to promote divisiveness at the state level. The CDC strongly advocates for effective HIV/STD education within the framework of comprehensive health, yet the U.S. Department of Education remains strictly categorical with its Drug-Free Schools money. A more broad-based approach by all federal agencies would be beneficial.

The Michigan Success Story

The Michigan Model for Comprehensive School Health Education successfully incorporated categorical funding to develop and implement a state comprehensive school health education program. The Michigan Model was developed by a coalition of seven state agencies who are working with voluntary and professional groups statewide to deliver a basic health and wellness program to Michigan school children.

By providing a single focus for school health, the Michigan Model avoids confusing messages about one health issue being more important and avoids duplication of efforts and competition for a very limited amount of classroom time and resources. The curriculum provides a base for school health with key messages that introduce, develop and reinforce positive health information, attitudes and skills with age-appropriate resources over multiple years. The model has succeeded in creating a network with the common goal of healthier children (Michigan Department of Education et al., 1990).

Current Efforts—State by State

The narrow versus broad-based approach to programs is an ongoing issue in the many different state agencies responsible for overseeing federal categorical funds. In some states, no federal funds are allocated for comprehensive school health education from either the Drug-Free Schools program or the NET program, and percentages vary for use of CDC School Health funds. A majority of the following states receive no state-level funding for comprehensive school health education. Highlights of responses from states that participated in the survey of state health education directors (Wilbur, 1992) follow.

Alaska

The health promotion specialist is responsible for overseeing the expenditure of categorical funds. About half of the CDC School Health money, 12 percent of the Drug-Free Schools money and 45 percent of the Nutrition Education Training money is allocated for comprehensive school health education.

Delaware

The State of Delaware has established a K-12 comprehensive health education and family life policy that requires local school districts to implement comprehensive school health programs. The Department of Public Instruction has developed a set of health education curriculum standards (K-12) for local districts to use as a guide for program goals, objectives and activities. Funding to promote comprehensive health education is provided through a cooperative agreement with CDC for HIV prevention and the Department of Education Drug-Free Schools Grant. No state money is provided for the projects.

The small size of the state makes collaborative efforts quite feasible. Advisory committees meet regularly to direct program activities and expenditures. Representatives from education and public health serve on committees with district administrators, teachers, school nurses, parents and representatives from the medical society, American Lung Association, American Heart Association, the Governor's Council, the Dairy Council and others. Many state and community-based organizations assist the department in promoting comprehensive school health education.

Florida

At the state level, a categorical focus has been eliminated. All categorical funds are targeted toward comprehensive school health education and distributed to the district level and then to the schools on that basis.

Georgia

Georgia believes that problem behaviors among youth are best understood and addressed in a comprehensive health framework. This state is interested in developing conditions that enhance the total well-being of Georgia youth. Through collaboration and cooperation within schools and across communities, an attempt is being made to provide impetus in promoting comprehensive health and reducing problem behaviors among Georgia's youth.

The categorical funding from the U.S. Department of Education for Drug-Free Schools and from CDC for HIV/AIDS education is administered through the comprehensive health unit as a part of the comprehensive health program. The NET funds have been administered through the school nutrition program for many years. The school nutrition program supports comprehensive school health and works collaboratively with the comprehensive health education unit. The school nutrition program is exploring the possibility of assigning staff to the comprehensive health unit.

Idaho

Categorical funding is used for single issue programs. However, individual consultants within the Department of Education are beginning to work more collaboratively. Recently, CDC School Health cooperative agreement funds have been allocated for comprehensive school health education.

Indiana

In the state of Indiana, health education, HIV/AIDS education and prevention, and tobacco, alcohol and other drug use prevention programs are taught as part of a comprehensive health education program. While Indiana receives categorical funding for some of its programs, the entire health education unit is housed in the Student Services unit of the Department of Education and works to develop a comprehensive approach.

Iowa

A comprehensive school health team has been formed. It includes all categorically funded programs in comprehensive school health education and is chaired by the health education consultant. However, even though collaboration does occur, the team is constantly struggling with issues brought about by categorical funding. Each program continues to make autonomous decisions regarding expenditures of categorical funds.

The Iowa Department of Health and Human Services has become partners with the Department of Education in their comprehensive school health initiative in the area education agencies and at the local level. Iowa also has a strong coalition for comprehensive school health made up of 26 nonprofit agencies and organizations. This coalition unites with the Department of Education to support comprehensive school health programs. Iowa has no legislative mandate for comprehensive school health education. The success of this initiative depends entirely on personal commitment to the concept by individuals who have control of categorical purse strings.

Kansas

Within the Department of Education, collaboration occurs between the comprehensive health and physical education program and the CDC School Health project. Efforts to collaborate with other categorical programs have not proven successful. Collaboration does occur among various state agencies regarding categorical matters.

Maryland

In the fall of 1992, the Maryland State Department of Education formed its comprehensive school health coalition to enable staff to address the varied school health needs of the local school systems in a highly coordinated way. The coalition presently includes personnel in three divisions who direct programs and manage funding cooperatively in HIV/AIDS, Drug-Free Schools, Nutrition Education and comprehensive school health education. The team is collaborating with the Department of Health and Mental Hygiene, the Governor's Council on Adolescent Pregnancy, and several voluntary health agencies to promote the state-mandated comprehensive school health program.

Minnesota

There is no direct categorical funding support for comprehensive school health education.

Missouri

Decisions regarding the expenditure of categorical funds are made by the individual agencies involved. The agencies all have good working relationships and usually collaborate on conferences and major projects. The majority of the CDC and NET funds are allocated for comprehensive school health education.

Montana

The Health Enhancement Division was created in 1991 to bring together various health-related programs into a single unit designed to provide a more comprehensive approach to local school districts. All decisions are reached through consensus, with funding necessarily reflecting this more integrated process.

Nebraska

Nebraska project directors for NET, Drug-Free Schools and health education, which includes HIV/AIDS education, have the latitude to make individual decisions. A strategic planning meeting helps to ensure that the comprehensive school health model (Kolbe and Allensworth, 1987) is implemented in a teamwork atmosphere. The Nebraska Department of Health is also included in planning meetings.

North Carolina

A team from the Division of Curriculum and Instruction, Healthful Living Section, coordinates the NET and HIV expenditures. Decisions about the use of Drug-Free Schools money is made independently with no input from the team.

Ohio

The Ohio Department of Education receives Nutrition Education and Training money, HIV/AIDS and Comprehensive School

Health funds from CDC, Drug-Free Schools dollars, and other state and federal allocations (e.g., Eisenhower funds, Chapter 2 and Ohio Teenage Sexuality and Pregnancy Prevention dollars). Currently, these and other program areas do some collaborative planning for instructional programs, conferences and learner outcomes, but as yet there is no collaboration regarding budget decisions.

Oregon

Categorically funded programs are housed in one division, and program efforts are approached from a comprehensive school health education perspective.

Pennsylvania

The Drug-Free Schools Office does not support comprehensive school health education in concept. Each categorical program has its own method of planning and designing program activities with some interbureau communication relating to policy and/or regulations. Interagency collaboration between Departments of Health, Education and Welfare and the Governor's Policy Office strengthens implementation of categorically funded programs.

Vermont

Drug-Free Schools and HIV monies are coordinated by the Prevention and Wellness Programs Unit. Decisions about both programs are made in consultation with each other. Regional health education program specialists, funded by categorical funding, work with schools to provide technical assistance and promote comprehensive school health education programs.

West Virginia

The West Virginia Department of Education, Office of Student Services and Assessment, is responsible for administering the CDC School Health Cooperative Agreement and the Drug-Free Schools program. The coordination of program goals is determined by a team, with the objective of improving comprehensive school health programs. The team is comprised of the assistant director of the office, who is responsible for the Health Education Program of Study and Health Services, the HIV/AIDS coordinator, the Drug-Free Schools coordinator, and the coordinator for drop-out prevention and homeless youth.

Wisconsin

While funding is categorical, the Department of Public Instruction staff has worked toward the continual growth of comprehensive school health education for more than twenty years. Nutrition Education and Training, HIV/AIDS and some Drug-Free Schools funds have continuously been used to support components of comprehensive school health education and school health promotion programs throughout the state.

Maine: A Case Study

Maine is primarily a rural state, covering roughly 31,000 square miles—as large as the rest of New England. About 90 percent of Maine's area is either forest or water. Although Maine's population grew from 1,125,000 in 1980 to 1,228,000 in 1990, the growth rate is slightly lower than the national rate of 9.8 percent (Maine Department of Education, 1991). The state has 757 public schools located in 283 local educational agencies. These statistics reflect a very large state with a relatively small number of inhabitants, many of whom have very limited resources and very significant health problems. In order to achieve success in achieving comprehensive school health education initiatives, educators and health professionals have had to work together.

A History of School Health Education in Maine

Cooperative arrangements and coalition building to support school health education have a history of more than two and a half decades in Maine (Flye et al., 1992). Shortly after the release of the *Surgeon General's Report on Smoking and Health* (U.S. Public Health Service, 1964), Maine developed an Interagency Council on Smoking and Health to address this public health crisis. While initial efforts focused on the need for tobacco use prevention education, many of the early advocates for school health education saw the need for a more comprehensive approach.

In 1968, the Multi-Agency Health Council of Maine developed a report on school health education in the state. Among the recommendations was a call to establish a minimum number of minutes of health instruction at the elementary and secondary school levels. The report also called on the Department of Education to take a leadership role in the state. Pressure brought to bear by the council and others resulted in the hiring of the first school health education consultant by the Department of Education in the late 1960s.

In the early 1970s, a Health Education Resource Center was established at the University of Maine at Farmington with funding from Medical Care Development, a private health agency. In 1977, a major five-year project, the School Health Education Program, was initiated by the Department of Human Services and the Health Education Resource Center. Maine became the first state in the nation to use federal Maternal and Child Health funds to support comprehensive school health education. Funding was also provided by the Kellogg Foundation. Over the course of the project, more than $1.5 million was invested in nearly forty schools throughout the state to develop K-12 curricula based on local needs and consistent with local values.

At the conclusion of this project, the Maine Department of Human Services developed a cooperative agreement with the Maine Department of Education and agreed to fund two comprehensive school health education consultants within the Department of Education. This agreement, which continues today, also includes ongoing support for the School Health Education Resource Center.

The Maine School Health Education Coalition (MeSHEC) was formed in 1984. The goal of the coalition was to ensure that each Maine student receives the benefits of a high-quality comprehensive school health education program within a safe and healthful environment. Membership in the coalition was open to any public or private sector organization interested in promoting planned sequential comprehensive school health education in Maine schools. More than forty agencies and organizations were represented in the coalition.

Networking has aided the promotion of comprehensive school health education in Maine. MeSHEC provides a vehicle for that networking by creating a forum for members to meet one another and to learn the scope of each other's efforts in health education. The networking has to a large extent reduced agencies' turf issues and resulted in more communication among members about their educational goals and services. Among the key challenges early in the history of the coalition was the need for members to put aside their own categorical interests and focus on the larger issue of comprehensive school health education as a prerequisite for success. The individuals in MeSHEC became vested in the belief that all students could benefit from a consolidated effort to promote quality comprehensive school health education programs in schools.

Policy

In 1984, the state legislature included comprehensive school health education in the 1984 Maine Education Reform Act. Ten areas were mandated to be taught:

- community health
- consumer health
- environmental health
- family life education
- growth and development
- personal health, including mental and emotional health
- nutritional health
- prevention and control of disease and disorders
- safety and accident prevention
- substance use and abuse

Subsequently, the State Board of Education revised the teacher certification standards, resulting in the separation and strengthening of health and physical education endorsements.

In the spring of 1991, the State Board of Education revised the certification standards for elementary educators to include a methods course dealing with science/health. Although health is included with science, this is the first time health education has been given any merit as an undergraduate course requirement for elementary teachers.

Curriculum

The state has a mandate for comprehensive school health education but not for a mandated curriculum. Local educational agencies have local control in developing health education curricula. Although this often results in a curriculum that meets the needs of the local community, the process also results in a wide variation in the extensiveness and quality of curricula. When developing their own health education curriculum, schools statewide may adopt or adapt a variety of comprehensive school health education curricula as well as categorical curricula. Health education consultants are available to guide schools through an adapted process of curriculum development specific to health education (Wilbur and Birch, 1989). As of 1992, more than 99 percent of high schools, 78 percent of middle and junior high schools, and 64 percent of elementary schools reported teaching comprehensive school health education (Pan Atlantic Consultants, 1992).

In 1989, the Maine Department of Education (MDOE) was awarded a three-year grant from the U.S. Department of Education to develop and disseminate a model comprehensive school health education program. This project, entitled Healthy Me/Healthy Maine, includes guidelines for five K-6 primary prevention health skills (caring for self and others, communication, self-awareness, problem solving and stress management), a scope and sequence, resource guide and strategies for family and community involvement in the school. The health education program also includes a professional development manual that addresses both initial training and ongoing support for teachers.

Parallel with the development of the Healthy Me/Healthy Maine program was the creation of *Maine's Common Core of Learning* (Maine's Commission on the Common Core of Learning, 1990). The Common Core challenges traditional beliefs about students and schooling. It is a statement of the knowledge, skills and attitudes that Maine students should have when they graduate from high school.

The "Personal and Global Stewardship" segment of this document deals with the whole person. The implication is that health education will play a vital role in preparing Maine's children for their future. An entire section, "Human Growth and Development," is devoted to health education, physical education and guidance. The Common Core of Learning is not a curriculum but a series of outcome statements that serves as a valuable resource to local school systems in their curriculum development process.

Funding Sources

The following funding sources provide support for comprehensive school health education in Maine:

- CDC cooperative agreement funds and state-legislated funds for HIV/AIDS prevention education within comprehensive school health education directed by the HIV coordinator, Division of Curriculum, MDOE
- Drug-Free Schools and Communities funds allocated to local schools by the Division of Alcohol and Drug Education Services, MDOE
- Division of Maternal and Child Health, Maine Department of Human Services, block grant funds for two full-time health education consultants, Division of Curriculum, MDOE
- Nutrition Education and Training Program funds coordinated by the Division of School Nutrition, MDOE

Several activities have helped to foster networking and collaboration among various state-level agencies. Program planners meet periodically to be kept informed of each other's activities. Collaborative efforts include activities such as a presentation on comprehensive school health education at regional meetings for chemical health coordinators and an Administrator's Symposium on Comprehensive School Health Education planned by the health education consultants and HIV coordinator.

However, the most powerful impact is made by having a division director totally committed to comprehensive school health education who is willing to call in all of the key decision-makers and work on breaking down barriers. Through a Department

Prevention Committee, the divisions responsible for special education, health education, drug and alcohol education, HIV education, guidance programs and school change are meeting for the direct purpose of working together in a meaningful and collaborative way.

The Local Level

One frustration at the local level occurs when schools have two or more health-related committees with little or no cooperation. For example, one school had a health education curriculum committee working on developing a scope and sequence encompassing all of the health needs of students while, at the same time, a subgroup of the school's drug and alcohol community team was working on the development of a comprehensive chemical health curriculum. Not only was there no communication between the two groups, but it ended up being a race to the finish to see who could get their curriculum to the teachers first. Unfortunately, this race had no winners.

Teachers can receive resources and professional development in an area of health education, but unless teachers can see how this area fits into the bigger picture it will be seen as an add-on program and quickly become lost. According to Blais (1993), school health is viewed as a comprehensive whole, but, in reality, the individual programs making up the entire program are separated along categorical budget lines in a majority of school systems. These individual programs include health education instruction, physical education, employee wellness programs, school-based clinics, drug and alcohol programs, guidance programs, student assistance teams, dropout prevention programs, food service programs and school health services.

A categorical approach to financing the comprehensive school health program means that each specific program establishes its own budget and management system. For example, health education funds are usually separate from health services funds in a school budget. Programs tend to be planned and managed independently of one another, and each area may even have its own coordinator overseeing that particular program and budget. Quite often, there is no real effort within the school system to formally link the categorical programs to existing school health programs.

Additionally, categorical funding may contain many constraints on how it is spent. The school system may wish to use specific state and federal monies to help support the entire comprehensive health program. However, regulations and guidelines placed on the categorical funds frequently prohibit the school system from using the money freely for any health program. Consequently, the health program in a school system can become fragmented, with much duplication between goals and objectives of the individual programs.

Categorical funding can cause certain health programs to be fully developed and implemented using federal and state monies, while other health programs never become established because funds are unavailable. For example, students may be overwhelmed with education regarding HIV/AIDS because substantial amounts of federal monies are available for this health area. At the same time, the school system may not have an existing health curriculum, due to insufficient local funds being provided for curriculum development.

Local education agencies need a comprehensive commitment to school health to improve the well-being of their students. What good is a drug and alcohol curriculum when the school can't afford a counselor to help students with substance use problems? Why teach students good nutritional eating habits in health education classes when the school lunch program continues to serve meals high in sodium and saturated fat? Why do elementary and middle schools continue to fund sports programs when some of these schools cannot afford to hire certified physical education teachers or implement quality physical education programs?

The Need for Change

School systems are doing an injustice to children when they develop and implement certain health programs with "free monies" and let other programs slip through the cracks. The blame, however, should not be placed solely on schools. Changes in regulations surrounding categorical funding must come from legislative bodies within our federal and state governments. Blais (1993) proposes several recommendations for categorical funding at the national, state and local level:

- The comprehensive health program in each school system should have one budget.
- The school health budget should be planned and managed by a Health Advisory Committee, consisting of personnel involved with all the existing health programs.
- All incoming grant monies that have been stipulated for specific programs should be used to fund the entire comprehensive school health program.
- Legislation passed by Congress should allow state and local education agencies to use federal monies in a way that allows communication, cooperation and collaboration between all existing health programs.
- All federally funded school health-related programs should have a consolidated grant application and procedure.

Isolated efforts that are currently categorical need to be integrated. The challenge is to break down the barriers to communication, cooperation and collaboration among the various individuals and agencies. We must go beyond tough issues and conflict by recognizing individual goals and working toward common ground. When we identify underlying causes of risky health behaviors, it becomes apparent that the various categorical programs and initiatives are dealing with similar issues. A more comprehensive world dictates a broad-based approach to school health education. As Jacqueline G. Sowers (1993) so ably puts it:

> We are seeing an enlightened move away from single-issue categorical approaches toward comprehensive health program development. Witness the state and local pooling of monies, efforts and human resources from various health promotion initiatives. Educators, parents and health professionals are "getting it." Core skills such as self-awareness, caring for self and others, communication, problem solving, and stress management underlie youth risks and choices regarding tobacco, alcohol and drug use, depression, sexual activity, teenage pregnancy, HIV/AIDS and violence. It makes sense to spend our time, energy, and money empowering students in these generic skills and attitudes, thereby enabling them to think healthy, learn healthy and live healthy. The total impact is greater than the sum of categorical parts.

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Chapter 23

Promoting Multicultural Sensitivity Among Educators

W. P. Buckner, Jr., HSD, CHES

Therefore we pledge to bind ourselves to one another,
To embrace our lowliest,
To keep company with our loneliest,
To educate our illiterate,
To feed our starving,
To clothe our ragged.
To do all good things, knowing that we are more
than keepers of our brothers and sisters.
We are our brothers and sisters.

— *Dr. Maya Angelou*
(Written expressly for the National Council of Negro Women Black Family Reunion Celebration on May 14, 1986.)

We expect our educational institutions today to engender excellence by expanding the scope of knowledge and enabling their constituents to acquire the skills of critical and rational thinking. All individuals exposed to this process should acquire the general skills to become successfully employed and to be contributing members of society. It is essential that the content of education be appropriate and relevant. The process itself must be democratic and humane; the development of the total person must be the most important goal (Bulletin of the Research and Training Center Services to Minority Populations, 1988). Excellence in education is far more than high test scores on selected standardized examinations. The student must be prepared to become a contributing, problem-solving member of his or her community and the world at large.

No child can be ignorant of or lack respect for his or her own unique cultural group and be able to meet others in the world on equal footing. Excellence in education, as outlined here, is the right of every citizen.

Serving a Culturally Diverse World

The population projections for the next four decades (1990 to 2030) are as follows:

- The White population of the United States will grow about 25 percent, while during the same period the African-American population will show a growth increase of 68 percent.
- The Asian-American, Pacific Islander and Native American population will increase by 79 percent.
- The greatest increase will be in the Hispanic-American population, which is expected to increase by an astounding 187 percent.

An examination of these projections suggests that by the year 2080 in the United States the Hispanic population may approach

24 percent; African American, 15 percent; and Asian American, 12 percent—in other words, 51 percent of the population will be from minority groups (Carr-Saunders, 1985; U.S. Bureau of the Census, 1990).

In one sense people of color could be considered the new emerging majority. It is important, therefore, that educators understand who these people are and how they make a valuable contribution to our nation and its diversity.

As we study demographic projections for our nation, we must also study the demographics of our world. If we project to the year 2020, people of color, represented by Latin American, African and Asian nations will comprise 84 percent of the world's population (Carr-Saunders, 1985). As this scenario evolves, it is crucial that we understand how this new-fashioned world will affect our lives. We must learn to appreciate the value of a multicultural and multiracial world. We must educate students to understand that concepts such as values, law, artistic expression, time, space, socialization, authority, family, status, power, gender, history, color, economics, religion and politics vary according to one's world view. Our world view is determined and shaped for the most part by our culture. We must learn to value the diversity and the complexity of world views.

As we face the next century, we must be prepared to live in a multicultural and multiracial world. The next century demands that social problems be systematically addressed in a progressive, humane manner, with strong leadership coming from the academy.

Cultural Perspectives

Culture is the intermeshing of many components, including law, politics, commerce, science, the arts of expression and communication, folkways, morals and value assessments. Each culture has its own particularity, and each has a configuration that binds its parts together. Culture is dynamic and ever-changing; moreover, it is a strong determinant of behaviors, beliefs, attitudes and values.

There is no one model for culture in the United States. As stated so well in the report of the National Alliance of Black School Educators (1984), culture is the sum total of objets d'art which accumulate as a group of people arduously fight for survival and self-determination. In other words, a group representing a given culture struggles to survive as a race, often against groups inimical to self-determination and perdurability. Minority groups are often relegated to an inferior symbolic universe, and thus the group's true historic struggle for survival, liberation and enhancement is hidden.

The National Alliance of Black School Educators embraces the ideology that a culture is functional when the group is able to preserve itself, reproduce itself and care for its offspring; when the birth rate exceeds the mortality rate; and when the mortality rate is average in comparison with the nonminority culture. It is also critical that the rising generation be as prosperous as their predecessors. Educational, social, political and economic achievement are used as measures of success.

We must be mindful as we reflect on history that the nonminority or mainstay culture in the United States is itself a collage of the lifestyles of people who struggled valiantly to build America. The early settlers came to this land as immigrants. Moreover, they came with a variety of eye and hair colors, religions, nationalities and ethnic backgrounds. The mainstream culture evolved as a result of the intermeshing of many components, i.e., law, politics, commerce, science, the arts of expression and communication, folkways, morals and value assessments.

The backgrounds of minority cultures are different from those of the nonminority culture. The backgrounds of minority cultures also vary from culture to culture, as well as differing within a particular culture, with respect to value systems, communication skills and diffusion of information strategies.

This is certainly the case in the Hispanic culture, where newly arrived immigrants are totally committed to their native culture. The descendants of these immigrants, however, may abandon the folkways of the Hispanic culture and adopt, with total commitment, the ways of the Anglo culture (Council on Scientific Affairs, 1991). When a person accepts most of the traditions of the nonminority culture (e.g., food, communicating only in English) that person is said to be acculturated. The discussion above illustrates two extremes in the degree of acculturation: completely Hispanic or completely Anglo. Most Hispanics fall somewhere between these extremes and, in fact, are probably bicultural.

Acculturation does not guarantee assimilation into a given culture. Assimilation refers to the extent or degree to which an individual enters a selected culture and becomes an integral part of that culture. The individual in question must be accepted by the members of the culture of which he or she seeks to be a functional part.

Individual members of minority cultures may agonize over abandoning their traditions and adopting accepted practices of the nonminority culture. They place themselves in double jeopardy because they may be rejected by various subsets of the nonminority culture, such as educational institutions, political/social arenas and the workplace, where in many instances they must seek legal means of effecting assimilation.

The culturally competent professional must support minorities in their efforts to preserve certain elements of their parent culture, rather than force them to abandon it for the Anglo culture. For the most part, the minority individual determines the degree of adaptation essential to reach the assimilation "comfort zone."

What Does It Mean to Be a Culturally Competent Professional?

Culturally competent describes institutions, systems and practitioners that possess the capacity to respond to the unique needs of populations whose cultures are different than that of the nonminority, mainstream culture (National Alliance of Black School Educators, 1984). The word *culture* implies the integrated pattern of human behavior that includes the thought, communication, actions, customs, beliefs, values and institutions of a racial, ethnic, religious or social group. The word *competence* implies having the capacity to function well within the context of culture. While the observations and comments here focus on ethnic minorities of color, the terminology and the thinking behind this model apply to everyone—we are all members of a culture.

Multiculturalism is the recognition of racial and cultural diversity; respect for the culture and beliefs of others; and an acknowledgment of the "worth of every community's contribution." It includes the right to equal opportunity and recognition regardless of race, creed or color.

Multicultural health education may be defined as learning opportunities designed with sensitivity to culture, values, beliefs and practices; carried out in relevant languages; developed and implemented with the active participation of people who truly are reflective of the "target" group; and taking into account the participating group's definition of health and its cultural diversity (MacDonald, Thompson and DeSouza, 1988).

Cultural Sensitivity Versus Color Blindness

Our new-fashioned world contains a collage of cultures, races, ethnic groups and color. The United States is a microcosm of the world at large and a place where racial/ethnic identity is foremost in many people's minds. There have been and still are movements that perpetuate the idea that we should be "color blind." Those who support this ideology contend that they do not see color, but people. People are not seen as black, brown or white but only as human beings.

Certainly all people wish to be seen as human beings and as persons of worth. Nonetheless, if we wish to see people as the full human beings they are, then color is an important consideration. Our color is an essential fact of our humanness. The vast majority of people have struggled, labored and fought to proclaim respect and dignity for their color. We would be turning our backs on recent history if we became advocates of a "color blindness" doctrine. If we deny color we are entering a false world. Color differences are beautiful, exciting, and must be affirmed, respected and encouraged as a positive attribute of life. We should celebrate our differences. Moreover, a multicultural, multiracial society needs to take pride in race and culture and recognize specific groups' distinctive contributions.

Cultural Disinformation and Stereotyping

In a cross-cultural interaction, where two people from different cultures must interact with one another, both may misjudge the other's actions based on learned expectations. Both will bring to the interaction their own social experiences with the other group and their understanding of the political relationships between the groups. Both will bring culturally prescribed patterns of "getting things done" related to communication, etiquette and problem solving. They may both feel that they are in a foreign environment and their actions may be dictated by stereotypical views of each other. This can result in misinterpretation and misunderstanding. Stereotypes are perpetuated in everyday interaction by our choice of expressions.

Culturally disadvantaged, underprivileged and *deprived* are terms too often used to describe minorities. It may be true that minority groups are represented disproportionately among the economically impoverished, but no human being is culturally deprived. We are all endowed with a culture that has been influential in shaping our attitudes, values and beliefs. However, the social conditions are at times structured in ways that make it exceedingly difficult for minority groups to achieve.

The mass media in the United States are responsible for creating many of the myths relating to certain minority groups. For example, African-American youth are often portrayed as the chief players in drug trafficking, especially in our large cities. However, when the facts are revealed, we find that the drug industry is overwhelmingly staffed by Whites who are both the chief distributors and users (Terry, 1970).

Another myth contends that the African-American male is becoming an "endangered species" (Terry, 1970). This myth has been perpetuated by statistics concerning African-American youth that reveal high imprisonment rates, high homicide rates and excess mortality rates from cancer and cardiovascular disorders. Some African Americans may feel that using the term "endangered species" to describe their plight compares them to animals. African-American youth may feel embattled, opposed and even structured out of the system, but never "endangered." Society endangers itself by not permitting a part of its own population to develop their full potential.

In the United States, we can ill afford not to use all of the brain power and energy we can muster if we are to successfully solve our present and future problems. Yet, African Americans today still face the same issues of racial discrimination and prejudice that we have supposedly been solving for almost three decades.

The Language of Prejudice

We often refer to people of color as "minorities," "non-White" or "Third World." People of color may be a minority in our country; however, worldwide they constitute a decided majority of the population. To refer to people of color as non-White is prejudicial in that it connotes that whiteness is the standard or norm by which all others are measured. Many prefer the term "Third World" to describe people of color because it tends to reduce the bias against a "non-White" majority. The Third World is made up primarily by the nations of Africa, Asia and Latin America.

Even more demeaning is to use terms such as *savage, primitive* or *backward* in characterizing Africans, Hispanics and Native Americans. The groups in question were members of highly defined and intricate societies, cultures and civilizations. In addition, we too often use the word "tribe" when referring to Native Americans. This term has assumed a connotation of primitiveness and backwardness. It is now deemed more appropriate to refer to groups representing Native Americans as "Nations" and people. For example, "the Sioux and Cheyenne Nations" would be an appropriate reference.

Loaded Words and Coded Messages

It is important in our communication, both oral and written, to speak and write so we cannot possibly be misunderstood. We must never use our communication skills to denigrate a particular group of people. For example, the term *welfare recipient* appears to be interpreted by some as a African-American person who is lazy and prefers to take handouts rather than work. However, the majority of people on welfare in the United States are White. History has often been distorted by the selection of loaded words to describe historical events. Through the Eurocentric (White European) perspective on world history, words such as *victory, conquest* and *massacre* are manipulated to defend or distort history and justify Euro-American conquest of Native American homelands. Native American victories are invariably defined as massacres, while the sometimes indiscriminate killing of Native Americans by Euro-Americans is termed a victory.

Discovering that by no effort of their own they enjoy privileges that people of color do not can be a painful learning process for Whites. For example, how many of these statements are true for you?

- When I have a problem with my supervisor at work, I can be reasonably sure that my race is not an issue.
- I can do well in a challenging situation without being called a credit to my race.
- If I should need to move to another city, I could be assured of renting or buying a house in an area which I could afford and in which I want to live.

If you are White, probably all of these statements are true for you. If you are a person of color, however, none of them may be true.

Educators have the responsibility to assist their students to become aware of racist language and codes and to help them develop terminology that will not degrade people or perpetuate negative stereotypes. Educators must also provide opportunities for students to explore the facts regarding a particular issue. For example, for many years American history books proclaimed that Christopher Columbus discovered America. The Native Americans who were here in large numbers at that time became invisible to historians or were completely ignored. The "new continent" Columbus discovered was already inhabited by people!

Promoting Multicultural Sensitivity

How the teacher sees the child is how the child sees himself or herself. There is the perception that the poorest school districts are beyond redemption and that educational resources would be wasted on poor children. This message is communicated to districts, schools and classrooms. "Children hear and understand this theme—they are poor investments—and behave accordingly. If society's resources would be wasted on their destinies, perhaps their own determination would be wasted too. Expectations are a powerful force..." (Kozol, 1991). There may be a further subjective response when the poor are non-White. Some would interpret this as institutional racism, which they believe is pervasive in our society. Cultural differences may compound the tendency to have lowered expectations of poor children, and at the same time provide a ready-made rationale for racism.

The following concepts promote multicultural sensitivity:

- Learn to trust students of all ethnic groups equally; be secure and comfortable in their presence; and do not feel threatened by them because of their race. Do not let their race determine how you respond to them.
- Be yourself. Do not alter your behavior to become accepted by students of another ethnic group. You cannot befriend them by pretending to be like them; they will sense the difference.
- Instill pride in ethnic identity; do not patronize students with expressions of sympathy for hardships they may or may not have endured.
- Each child is an individual. Do not secretly blame a student because he or she is of the same race as someone who committed a crime.
- Seek opportunities for encounters with students who are of a different race than you as often as you seek encounters with students who are of the same race.

- Encourage expression of cultural differences.
- Experience and environment, not color or race, determine cultural differences. For example, do not treat a brown-skinned person as though he or she came from Mexico unless you know this to be the case. This person's cultural experience may be no different from that of a student with white skin.
- Reduce prejudice and misunderstanding by fostering contact among diverse groups.
- Critically examine your own background. Previous experiences should not prevent you from understanding that the behavior of minority students may be due to differing values.
- Make an effort to understand how things look from the student's viewpoint.
- Learn to deal with individuals, not groups or stereotypes.
- Display a positive attitude and develop expectations for all students, for these can be your allies and tools if properly maintained and used.

Developing Educators' Ethnic Competence

In our endeavor to become a pluralistic nation, it is crucial that our educational system be sensitive to cultural differences and perpetuate programs that permit each group to view its heritage with dignity. In so doing, we will assist each individual to attain his or her full human potential.

Educators must evaluate and improve their ethnic competence skills by critically examining personal attitudes, level of knowledge and the specific strategies necessary to enhance lesson development within the area of multicultural education.

Skills

- Ability to openly discuss racial and ethnic differences and issues.

- Ability to assess the meaning ethnicity has for the individual person.
- Ability to recognize and combat racism, racial stereotypes and myths regarding individuals and institutions.
- Ability to evaluate new techniques, research and knowledge as to their validity and applicability in working with ethnic minorities.

Personal Attributes

- Concern, empathy, respect and nonpatronizing support and acceptance.
- A recognition of ethnic differences between people.
- Desire and willingness to work with different ethnic minority groups.
- Examination and classification of your own personal values, stereotypes and biases regarding other ethnic groups social classes.
- Personal commitment to change racism.

Knowledge

- Knowledge of other cultures with respect to history, traditions, values, family systems, artistic expression and the like.
- Knowledge of the help-seeking behavior of minority groups, including the diffusion of information.
- Knowledge of the role of language, special patterns and communication styles in ethnically distinct communities or settings.
- Recognition of the ways that professional values may conflict with or accommodate the needs of ethnic minorities.

Multicultural education involves both direct and indirect teaching. Positive interactions convey a strong message of appreciation and respect to all students.

Changes to the Curriculum

Within the framework of the subjects they teach, teachers are challenged to be creative. Creativity can be extended to include incorporating multicultural experiences for students. Lessons promoting pride and acceptance of one's culture should be infused into the curriculum on a regular basis, not as a special unit of study. Some suggestions follow.

Language Arts

- Choose stories or assign literature reading that is culturally relevant for your students.
- Invite people from the community to speak about their history, culture and practices.
- Learn phrases in different languages spoken by your students.

Fine Arts

- Learn dances and games from other cultures.
- Visit museums and explore the artifacts common to other cultures.
- Review plays and music that reinforce the contributions of talented individuals from other cultures.

Social Studies

- Explore different customs unique to other cultures.
- Sample foods that are enjoyed by other cultures.
- Investigate influences of other cultures on our society of today.

Health

- Participate in activities that demonstrate the effects of cultural stereotyping and prejudices.
- Plan activities that encourage group cohesiveness.

Sources of Health Information

Educators should know their population(s) well. It is imperative that teachers be sensitive to the folkways, mores, needs and values operating in a given community. In particular, health educators must be sensitive to the particular health needs of their students.

Many minority health problems appear to be related to lifestyle and environment. With different educational interventions, the risk factors can be reduced. For example, the odds that an African-American baby will die early in life are greater than those for a nonminority. But researchers have found that the odds can be improved by developing certain habits. To put it in scientific terms, certain risk factors are modifiable.

Figure 1 shows the modifiable risk factors for the major causes of excess deaths among minorities.

Figure 1
Major Causes of Death and Modifiable Risk Factors

Cancer	Tobacco, diet, alcohol
Diabetes	Obesity
Heart Disease/Stroke	High blood pressure, diet, lack of exercise, obesity, tobacco
Infant Mortality	Tobacco, alcohol, late or no prenatal care, adolescent pregnancy, diet
Homicide/Suicide	Alcohol, drugs, poor conflict resolution skills
Chemical Dependency	Alcohol, drug abuse, smoking
Unintentional Injury	Alcohol, drugs, environmental hazards

Source: Secretary's Task Force on Minority Health, Black and Minority Health, U. S. Department of Health and Human Services.

African Americans and Hispanics

African Americans and Hispanics are sufficiently different from nonminorities to merit a special communication effort to reach them effectively. Educators wishing to convey health information to individuals of African-American or Hispanic background need to carefully consider preferences in the type of media used as well as how that source is used. (See Figures 2 and 3.)

While all three ethnic groups viewed the physician as the most accurate source of health information, there was some variance in the degree to which a selected group supported that view. Note also that more African Americans and Hispanics identified television as a popular source of health information than did Whites, but that both groups (African Americans and Hispanics) rejected television as the most accurate source. Since poor African Americans and Hispanics may have little contact with health professionals because of economic status or language barriers, a likely source of their health information is undoubtedly the mass media.

Native Americans

Native Americans represent the smallest minority population in the United States (1.5 million) (U.S. Bureau of the Census, 1990). This population includes American Indians, Eskimos and Aleutian Islanders. Native Americans have several health problems that call for intervention, e.g., alcohol abuse and fetal alcohol syndrome, unintentional injuries, coronary heart disease, gall bladder disease, diabetes and cancer.

Designing an intervention strategy for this group is quite complex because of the great diversity within this relatively small population. Native Americans are separated into 22 Nations, with the Navajo, Cherokee, Sioux, Chippewa and Pueblo being the largest. Each Nation possesses its own dialect/language, philosophy, customs and governmental structure. It is obvious that no single design can be adopted to meet the needs of all Nations.

Figure 2

Major Source of Health Information Identified by Ethnicity of Respondent

Source of health information	**White** N=1604 %	**African American** N=547 %	**Hispanic** N=170 %	**Total** N=2,340 %
Doctor	21.8	37.3	35.0	26.4
Newspaper	27.8	9.3	13.5	22.3
Magazine	12.0	7.0	5.0	10.3
Television	16.0	25.0	24.1	18.7
Radio	3.0	3.6	3.5	3.0
All Other Sources/ Don't Know	19.4	17.8	18.9	19.3
Total	100.0	100.0	100.0	100.0

Figure 3

Most Accurate Source of Health Information Identified by Ethnicity of Respondent

Most accurate source of health information	**White** N=1604 %	**African American** N=547 %	**Hispanic** N=170 %	**Total** N=2,340 %
Doctor	68.1	73.5	64.1	69.1
Newspaper	4.7	2.4	3.5	4.1
Magazine	9.5	4.9	6.5	8.2
Television	5.4	8.6	5.3	6.2
Radio	0.2	0.9	0.0	0.3
All Other Sources/ Don't Know	12.7	9.7	20.6	12.1
Total	100.0	100.0	100.0	100.0

Educators must understand the specifics of a particular Nation and tailor the intervention design to address its specific needs.

Native Americans have three significant sources of health information in addition to mainstream health providers such as physicians (U.S. Department of Agriculture, 1986). One of these sources is the extended family, also an important source for other minority groups. For health intervention, the educator must reach beyond the nuclear family and include other generations in the educational effort.

Traditional healers/medicine people represent another source of health information. Native Americans use healers in addition to medical doctors. The educator must be careful not to challenge the existing culture and beliefs and must examine the extent to which this alternative method of health care is used within a Native American community and the impact these beliefs and practices will have on the health education process.

The third source of health information is the Community Health Representative (CHR) within the Indian Health Service. The CHR acts as a liaison between the Indian community and mainstream health providers. CHRs are believed to be a very credible source of health information and can serve as effective agents of change. They are members of the local community and have been trained to provide health information in keeping with the folkways and mores of their particular community.

Asians/Pacific Islanders

The 1980 census reported 3.5 million Asians/Pacific Islanders living in the United States; the majority reside in urban areas (U.S. Bureau of the Census, 1990). This group consists of individuals from Japan, China, Samoa, Korea, Thailand, Burma, Hawaii, Viet Nam, Laos, Cambodia and the Philippines. Accordingly, one would expect a great diversity among this population concerning language, religion, educational levels, socioeconomic status and levels of acculturation.

During the past decade there has been an immigration of a large number of Southeast Asians under the Refugee Resettlement Program; however, data on social characteristics of Asians/Pacific Islanders principally reflect information from the three largest groups—Chinese, Philippine and Japanese. The Asian/Pacific Island minority is the healthiest of all ethnic groups in the United States, including Whites. They experience virtually no excess deaths and, when all Asian ethnic groups are combined, they have a greater life expectancy than Whites.

Nonetheless, specific health problems do exist among various subgroups of this population. For example, a major study at the University of Hawaii on the health status of Americans in the Pacific appears to indicate that compared to Caucasians in Hawaii, Native Hawaiians experience excess deaths from heart disease, cancer, diabetes, infant mortality and unintentional injury. Although it has been established that the relative risk of death among Asian/Pacific Islanders for all causes is a third lower than that of Whites, they nevertheless have higher rates of tuberculosis, hepatitis, anemia and hypertension. Differences in lifestyle, culture and socioeconomic status are hypothesized to explain the lower relative mortality of Asians/Pacific Islanders in the United States.

As might be expected, cultural differences and language difficulties are major obstacles for immigrants and refugees in using health services. Newly arrived Asian immigrants are of particular concern as they experience the cultural shock of the effects of urbanization, families, role change, cultural conflicts and acculturation, all of which can create a feeling of isolation and powerlessness.

The basic sources of health information include the mainstream system, folk/traditional system and unlicensed medical professionals. Health educators also must consider the role of the family in communicating health information. As Asian families become more acculturated they tend to mirror the majority population. Educators must consider needs, beliefs and the availability of health care providers prior to formulating educational information strategies.

Addressing Minority Health Issues

Major health problems of some minorities may be addressed through educational efforts by focusing on the following issues (U.S. Department of Health and Human Services, 1987):

- promotion of healthy nutritional habits within the constraints of cultural patterns (e.g., more fiber, less fat, less salt)
- deterrence of the use of tobacco products, including chewing tobacco and snuff
- deterrence of drug use, especially among youth
- deterrence of alcohol use, especially among youthful drivers and chronic alcohol abusers
- promotion of enhanced levels of physical activities
- health and prenatal examinations and positive maternal health habits
- enhancing awareness of hazards inherent to certain occupational settings
- enhancing awareness of where to obtain health services, whether general or specialized

Designing Health Materials

Materials designated for use with minority populations should be field tested with members of the minority population prior to dissemination. This technique can help identify special needs of a population. The following concerns should be addressed when developing and disseminating materials to minority populations (U.S. Department of Agriculture, 1986; U.S. Department of Health and Human Services, 1987):

- Materials written in a language other than English should be developed from the onset of the program. Both lay and professional members of the target community should be involved in the development.
- Innovative health education intervention should be developed for minorities to be used in churches, worksites and schools.
- Techniques for using pictures and words to convey health messages should be explored.
- Procedures should be established to facilitate the exchange of educational materials appropriate for the identified minority groups.
- Messages developed for media use should be based on providing useful tools on which to act, not just admonitions.
- Materials developed should be both culturally sensitive and problem specific.

Characteristics That Can Affect Diffusion

Successful efforts to diffuse health information take into account the characteristics of the minority population (U.S. Department of Agriculture, 1986). These characteristics include:

- prevalence/incidence of preventable and treatable illnesses (e.g., high blood pressure, heart disease, high blood cholesterol, diabetes)
- prevalence/incidence of risk behaviors (e.g., smoking, lack of exercise, high sodium intake, noncompliance with medical regimen)
- health beliefs and health practices (e.g., concepts of disease,

belief in susceptibility of disease, use of nonwestern medicine, preventive care behavior)
- culturally related traits (e.g., apathy, skepticism, fear, modesty, machismo/invulnerability, stress, self-esteem, self-determination)
- local customs and beliefs (e.g., religious beliefs, language preference, native customs)
- demographic characteristics of the community (e.g., sex distribution, age distribution, ethnic distribution, urban, rural and suburban factors)
- socioeconomic conditions (e.g., literacy, family structure, educational level, employment conditions)
- community resources (e.g., availability and accessibility of preventive health services, primary health care, transportation systems, mass media)

School and Community Linkages

The enhancement of the school health education program requires a strong link with community health promotion activities for the parent community. Health information seminars and health fairs reinforce classroom concepts as well as involve the adults in the learning process. Parent newsletters that list home projects that will facilitate the transfer of health information can be disseminated at the beginning of each health unit. With a thorough understanding of the health values, attitudes and sources of health information for minorities, seminars and health fairs can be tailored to diffuse accurate health information without negating cultural influences.

Furthermore, since students in a particular school may represent several communities, teachers must avoid using broad racial characterizations because of the risk of stereotyping. There is no better way to learn about the community than to periodically become part of that community through visiting its members. Such visits should consist of more than just a drive through the neighborhood.

Visits can be made to a church, a community center and, with advanced permission and knowledge, to homes of several students. In the initial visit to a community, the educator may be viewed with great suspicion and skepticism concerning his or her motives. Educators must be prepared to develop strategies for handling such situations by establishing relationships in the community with ministers, political figures, community development leaders, Boy/Girl Scout leaders and the like.

Looking Ahead: Teachers for Tomorrow

Educators are given the task and challenge of preparing children for the future. The future holds many changes. We can best prepare our students for the global world of tomorrow by celebrating the dynamics of diversity and enabling them to become sensitive, accepting adults.

The United States today is facing a race relations crisis of a magnitude not seen in a generation. One issue that has generated considerable passion is multiculturalism. People who have been systematically excluded from history wish to be included. They desire an end to the "white out" of minority history and are calling for an end to the overemphasis on the European influence on American culture and the neglect of contributions made by minorities (Secretary's Task Force on Minority Health, 1985). They contend that our society's diversity is a positive source of individual and institutional enrichment.

We must look beyond today and into the next generation. We must be prepared to live in a multicultural and multiracial world. Academicians must generate progressive institutional change based on factual information to effectively address twenty-first century concerns. This includes extending our knowledge about current scientific reports, students of color, multiracial and multicultural curricula, and strategies for developing productive work and learning environments.

The following should serve as a checklist for educators as they begin this process (McNairy, 1991):

- Determine whether your current expertise addresses the diversity that exists both locally and worldwide and the responsibility that we as people have for all humankind and our international interdependence.
- Determine whether your programs not only prepare students to strengthen and enhance their skills and broaden their knowledge of the world around them, but also enable them to better understand themselves and the values and cultures of others.
- Determine whether curricula, services and resources do in fact benefit all of the students under your tutelage. Materials should be culturally and linguistically correct.
- Determine whether an action plan has been developed relating to special information and education for migrants, recent immigrants and undocumented populations.
- Determine whether plans have been developed that will expand the quality and availability of advising, counseling and health service delivery and how these plans will affect the students of the year 2000. Determine alternative ways of connecting students to support services.
- Develop an evaluative mechanism to determine the extent to which your institution is meeting its multicultural responsibilities.

Following these recommendations will enhance cultural competency and make students a priority. Of course, such guidelines will significantly modify how one teaches, interacts with and provides services to students. In many cases, this will necessitate wide-ranging and much-needed institutional change. If these recommendations are pursued, the environment for all of us will change significantly.

Change may entail a re-examination of priorities in regard to financial, personnel and other resources. Some of the ways that we have historically dispersed funds and utilized human resources must be altered drastically. But while transformation may be frightening, if planned and implemented correctly, it is also exciting.

Educational institutions are professional citadels dedicated to growth and the interchange of ideas. Where else can one find expertise, skills, knowledge and courage to generate dynamic, yet appropriate change, if not among our colleagues in education. We definitely have the equipment, but the question remains, Do we have the will? A sobering reality is that the social, political and international issues that we face as we approach the twenty-first century leave us no alternative but to be prepared, to be innovative, to be progressive, to be flexible and to dare to meet the challenge of building bridges for our students into the next century.

I Am a Debtor
I cross the river that was spanned
By some inspired bridge builder's hand.
I walk a highway that was laid
With sweat and toil by men who prayed
For strength to master swamp and hill;
Even my house I did not build.
From vineyard that I did not plant
I eat the precious fruit they grant.
Mine is this priceless heritage,
The gems of every poet and sage,
So much to other men I owe

That I must plan well as I go.
For if I leave no deed or song
For others who will come along,
Regardless of what wealth I gain
Truly I shall have lived in vain.
— *W. P. Buckner, Jr.*

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Chapter 24

Involving Families in School Health Education: An Essential Partnership

David A. Birch, PhD, CHES

Numerous individuals and organizations have emphasized the importance of partnerships to promote and improve school health education. Partnerships can link schools with families, community organizations, businesses and professionals.

The importance of the family as a partner in education was emphasized by James O. Mason, assistant director of the United States Department of Health and Human Services. Mason (1989), in recommending that schools form partnerships with parents, stated, "The interaction between parents and children may well be the most important key to lasting, long-term improvements in the overall health status of this country." James P. Comer, a Yale University psychiatrist, believes that parents must play a major role in all aspects of school life, including working together to promote the social and emotional growth of children (Warner, 1991). Iammarino, Weinberg, Laufman and Cooper (1992) stressed the need for family involvement by stating, "It is important to consider the family and schools in a partnership designed to maximize their mutual influence on students' current and future health behavior."

Why Involve Families?

While school health education is an integral component of a health promotion program for children and youth, many other factors outside the classroom have an impact on their present and future health status. Elias (1990) described health education as occurring "in the context of family, community, religious and media messages concerning health." Parents and other family members buy groceries, prepare meals and model numerous other health-related behaviors. All of these factors affect the behaviors of children in families and thus influence the impact of school health education programs.

While parent or guardian involvement is important, grandparents, aunts, uncles and siblings also can be key individuals in a student's school health education program. Examples of family involvement in school health education include a parent serving as a member of a curriculum development committee; a family working together on a health education homework assignment; an uncle, aunt or grandparent volunteering in the health education classroom; or a parent attending an after-school or evening health education awareness program. Several reasons justify family involvement in school health education programs.

Family involvement improves student learning. Chavkin (1989) reported that "the research is incontrovertible; parent involvement is directly related to significant increases in student achievement." Henderson (1987) reported other benefits in addition to achievement, including increased student attendance, reduction in student dropouts, an improvement in student self-esteem, and more parent and community support of the school. School health education programs that incorporate parent involvement have been shown to effect positive changes in both children's diets and smoking behavior among parents, in addition to promoting child/parent discussion about health topics (Bernier, 1991; Perry, Crockett and Pirie, 1987; Perry et al., 1988).

Families want to be involved in their children's education. Davies (1991) reported that families of middle school students in all socioeconomic, racial and ethnic groups want to be involved in helping their children learn. Chavkin and Williams (1985) found that parents, along with teachers and administrators, support parental involvement in schools.

Family members can become educated about health. While community and worksite health education programs are increasing in both quality and quantity, many people have not been exposed to quality health education programs. Involvement in at-home school health education activities may enable family members to learn new information, examine health-related attitudes and develop health skills. Perry, Crockett and Pirie (1987), based upon a review of literature dealing with health-related behaviors in families, concluded that children are able to influence the attitudes and behaviors of their parents. Epps (1987) reinforces this idea by reporting a statement made by a parent of an elementary student in the Mercer Island (Washington) School District, "I become angry when my second grader informs me at the dinner table that I'm not serving him a balanced meal. I must admit that I am learning many nutritional facts from him."

Family members can provide reinforcement. Families reinforce the information that students learn, the attitudes they form and the skills they develop in school health education programs. This reinforcement may occur through structured family health education activities; incidental learning in a supermarket, pharmacy or playground; or family practice of a health skill. Parents and other family members can provide further reinforcement through positive role modeling.

Families bring a different perspective on sensitive topics. Family involvement can enable parents or other family members to present a family perspective on the many values-related issues in health education. School coverage of topic areas such as growth and development, family life and sexuality, substance use and abuse and death and dying can be enriched through such a perspective.

Families can lend support to the program. Involvement in family activities can educate parents and other family members about comprehensive school health education. Family members who are educated and involved in school health education are more likely to be program supporters and advocates.

Possible Problems in Implementing Parental Involvement

While the potential benefits of family involvement hold great promise for increasing the impact of school health education, the possibility of problems in implementation does exist. While these possible problems should not deter a school district from involving families in health education, professionals should be aware of potential roadblocks and be prepared to address them. Possible problems include the following.

Noninvolved parents. While research indicates that most parents desire involvement in their children's education (Chavkin and Williams, 1985), some parents may be more difficult to involve than others. Greenwood and Hickman (1991) cite several reasons for parental noninvolvement, including a lack of value for education, a feeling of powerlessness related to influencing the school, a belief that running schools should be left to the "experts," perceived lack of knowledge and skills, job requirements and poor health. Davies (1991) believes that new approaches that emphasize reaching out to families can increase the participation of "hard-to-reach" families.

Limited time for school staff and family members. Working with families will increase the scope of responsibilities for many school administrators and teachers. School administrators may need to commit additional staff time and resources to effectively work with families.

Parents and other family members are often limited in time available for school activities. School staff need to develop family involvement activities for both home and school that take into account the many demands that family members may face.

Unhealthy communication related to behaviors of family members. As children learn about positive health practices, they may become especially vigilant about the behavior of others, particularly family members. This vigilance may manifest itself in the form of negative verbal communication toward other family members. Family members may then respond in a negative way to the student's behavior. Teachers and parents need to be prepared for these possible manifestations in order to assist children with these issues.

Adults need to explain to children, to their level of understanding, that behaviors occur in the context of life situations, that some unhealthy behaviors may be difficult to stop and that some behaviors may be more healthful at certain times than others. Family members need to be aware of the topics being covered in health education class to anticipate possible negative student reactions.

An example of a habitual behavior is smoking. A child who is involved in a unit on the dangers of smoking may feel anger toward a loving, responsible older brother who smokes. To prepare children for family involvement activities on this issue, teachers need to be aware that some children will have family members who smoke and emphasize to students that smoking is a difficult habit to give up and that people who smoke may practice other, healthy habits. It should be pointed out to students that negative behaviors are sometimes practiced by positive people. Positive communication must be emphasized.

Lack of awareness and knowledge of different family cultures. Parents of students from minority cultures in a school may participate less in school activities than parents from the majority culture (Delgado-Gaitan, 1991). This lack of participation may result from feelings of isolation, a perceived lack of knowledge and/or communication skills, or activities that are culturally uncomfortable or unfamiliar. School staff must be attuned to the different family cultures in a school and be prepared to interact in a positive manner with families of all cultures.

Family Involvement Strategies

Ideally, family involvement should be part of a districtwide effort. Creative approaches need to be developed and implemented to involve as many parents as possible. The traditional parent open house, PTA meetings and parent bake sales are no longer sufficient to maximize parent involvement. Davies (1991) believes that the potential for parent involvement will be enhanced if family involvement programs include the following three features:

- a means of attracting family members to the school
- a means of reaching families at home
- a clearly supported, teacher-controlled way of engaging teachers in improving curriculum and instruction through the creation of new kinds of connections with parents and other community resources

Redding (1991) has identified several keys to successful parent involvement:

- Parents must be seen as full partners in the school community, not as external parties involved through the good graces of the school.
- Parent involvement should begin with parents most likely to respond, and proceed in wider circles to reach other parents. Involved parents are continually used to reach other parents.
- When parents are asked to be involved, it must be for a meaningful activity.
- Parent involvement must be measured by the quality of their involvement and not just the number of parents involved.

To promote leadership in parent involvement programs, some schools have hired parent involvement coordinators (Greenwood and Hickman, 1991). The responsibilities of these coordinators could be broadened to the coordination of family involvement activities.

While the following strategies are presented for implementation with the comprehensive school health education program, most, if not all, are applicable in other areas of the school curriculum as well. The strategies are grouped into three categories:

decision-making activities, education programs for family members, and student/family learning activities.

Decision-Making Activities

Numerous individuals have identified the importance of parents as decision makers in schools (Chavkin, 1989; Greenwood and Hickman, 1991). Many parents would like to be involved in school decision making. Chavkin and Williams (1990), in a survey of working parents, found that more than 90 percent of the parents responding either agreed or strongly agreed that parents should be involved in school decision making. School health educators have long advocated parental involvement in decision making as members of curriculum committees and school health advisory councils or committees.

Curriculum Development Committees

Ideally, the school health education curriculum development process should use a committee approach (Birch, 1992; Boschee, 1988; Wisconsin Department of Public Instruction, 1985). The curriculum development committee presents an excellent opportunity for family members to be involved in the school health education decision-making process. Committee members should include administrators, teachers and other school staff and community members, including parents and other family members.

Participation in the curriculum development process enables family members to provide input into decisions about curriculum content and interact with school staff and other community members. Benefits to the school district from family involvement in curriculum development include a family perspective on health education learning needs, input into curriculum decisions related to sensitive health education content areas such as sexuality education and other values-related areas, and broad-based community investment in the health education program.

School Health Advisory Committees

The school health advisory committee has long been recognized as a key factor in promoting school health (Allensworth, 1987). Meeks and Heit (1992) describe the role of the committee as "coordinating efforts for the comprehensive school health program." Members of the school health advisory committee should include community members and school staff in addition to family members. Participation on the school health advisory committee can empower family members through increased awareness and knowledge of the comprehensive school health program and involvement in decision making.

In addition to curriculum development committees and school health advisory committees, other opportunities may be available for family involvement in decision-making activities. These may include participation on resource review committees, special school task forces and planning committees.

Education Programs for Family Members

Learning, both formal and informal, should be a lifelong process. Greenwood and Hickman (1991) have identified "parents as learners" as one type of parental involvement in schools. Bensley (1985) believes that parents need to be educated so they can reinforce what is taught in school.

Numerous examples of educational programs for families exist. Hawkins and Catalano (1990) reported school-based parent education programs in such topics as drug use prevention strategies and family and behavioral management. At Creighton Elementary No. 2 in Phoenix, Arizona, parents are taught to work with children in the classroom and to use these skills at home with required reading assignments ("The FIRST Grants," 1991).

It is important to note that due to such factors as school location and family and work responsibilities, traveling to a school for educational programs may be difficult for many family members. Thus, educational programs need to combine both school- and home-based efforts.

Program Awareness Sessions

Families of students are often unaware of the content and activities of health education courses. Program awareness sessions for family members can be held at the beginning of an entire course or at the beginning of course units. These programs should include a presentation of the content covered in the course, examples of student activities, and an opportunity to review curriculum guides, textbooks and supplementary course materials. Time should be allotted for dialogue among attendees and staff members.

Course Companion Programs

Course companion programs offer an opportunity for family members to learn about health topics at the same time students are studying the topics in health education class. Programs may be offered in the evenings, after school or at other times convenient to staff and family members.

Since companion course content corresponds with the students' health education course content, ideally the students' health education teacher should conduct the companion course. When the students' teacher conducts the course, family members not only learn about the course content of the school health education program but also about the teaching strategies and resources used and student reactions to the course.

Family Centers

A family center is a room or available space devoted to offering health education information to family members. A center can be open to family members during the school day and possibly even after school or in the evenings. Using an open-door or walk-in policy, family members can use the center to learn about personal health concerns and the school's health education program. In addition, the center can provide an opportunity for family members to engage in informal dialogue with school staff members. At the center, family members can browse through resources that relate to personal and family health topics, view videotapes, review school health education curricula and related resources, and engage in discussion with available school staff.

Davies (1991) described a parent center at the Ellis School in Boston as providing a "substantial, continuing and positive physical presence of family members in the school." Ellis School parents reported that the parent center enabled them to be more involved and positive about their children's education. While focusing on the entire school curriculum and not just health education, the Ellis School Parent Center can provide a model for future centers.

Neighborhood Programs

Attending activities at school can sometimes be difficult or impossible for even the most interested family members. Alternatives to the school-based program awareness session or course companion program can be developed. Bringing programs to school neighborhoods provides one solution.

Audrey Sullivan, principal at Hans Christian Andersen Elementary School in Rockledge, Florida, described plans to implement a "whistle stop" tour on one of her school district's inservice days. The plans call for teachers to ride the school bus to different neighborhoods and stop at different locations to meet with parents and hand out information ("The Parent Factor," 1991).

Newsletters

Newsletters can serve as an educational vehicle for family members. As with many of the other family education interventions, a newsletter provides family members with both information about personal and family health and information about the school's health education program. While the newsletter could be developed by teachers or other professional staff, students could also be given the publication responsibility. The Cajon Family/School Partnership in California provided parents and students with after-school workshops on desktop publishing before they collaboratively produced students' publications ("The FIRST Grants," 1991).

Student/Family Learning Activities

It has been acknowledged that "at home" student/family learning activities have the best chance of involving more parents and other family members (Perry et al., 1988). Activities designed for the home should reinforce the topics and activities covered in the regular health education class. At-home activities can also encourage students to discuss topics covered in class that relate to family values. It is important for teachers to consider that some children may have limited opportunity for other family members to take part in activities with them. These children should not be penalized in any way for this lack of opportunity.

Review Activities

Review activities are assignments that are designed to reinforce information that was covered in the health education classroom. In most cases, the review activity will involve a worksheet designed to elicit either written or verbal responses from students, with a family member responsible for checking the responses. It is important that an answer sheet be provided for use in checking responses. Examples of review activities include:

- Completing a worksheet that includes questions that address the harmful effects of drug use. The worksheet is checked and reviewed by a member of the student's family.
- Flash cards with the answers on the back of the cards that relate to fitness information covered in class. The questions on the cards are asked and checked by a family member.

Family Collaborative Assignments

Collaborative assignments involve work that is done cooperatively with other family members. Unlike review assignments, students and family members work together to complete collaborative assignments. Collaborative assignments may include work that can be completed in the home or involve assignments outside of the home setting. Examples of collaborative assignments include:

- completing a written or computerized questionnaire designed to determine family health history
- shopping together at a pharmacy to purchase items for a family first-aid kit
- separately reading a magazine or newspaper article on health care and collaboratively answering a series of questions based upon the article

Skill Demonstration Projects

Health skills learned in health education classrooms are often used in real-life settings outside of school. Skill practice with and for family members can provide a real-world laboratory for students, as well as provide families with an opportunity to practice healthy behaviors. Examples of skill demonstration projects include:

- During a nutrition unit, a student, with family assistance, prepares a traditional family meal using ingredients and cooking methods designed to lower the fat and sodium content of the meal.
- Students discuss with family members situations in which assertive communication could have been used. After discussing the situations, through roleplay with other family members, the student practices assertive communication techniques in one of the situations.

Family Discussions

Numerous topics in health education are related to family values. Structured family discussion allows students to discuss values-related issues covered in health education class with family members. Examples of family discussion assignments include:

- After watching a television show on teen sexuality, students and family members work together to complete a worksheet containing discussion questions that address issues covered in the program.
- In class, student groups are given a cooperative learning assignment to develop a plan for local, state or national government to address the issue of HIV/AIDS. Once the plan is developed, students present the plan to family members for discussion.

Family Health Plans

A family health plan provides an opportunity for students and family members to improve selected behaviors together. Family health plans can be developed for each unit in the health education curriculum or for selected units. Plans should be based on information learned in the health education class. Ideas for family health plans include:

- Involvement twice a week in a physical activity in which family members participate together. Examples of activities include a family bike outing, a family walk or a family volleyball game.

- Activities designed to improve family nutritional practices. These may include family preparation of one new nutritious meal per week, or a meal at a favorite family restaurant featuring low-fat menu choices.

Students can provide periodic reports to the teacher on the progress of their family health plans.

Family Calendars

Family calendars can be used to identify quick (less than five minutes) activities that families can do on a daily basis. The activities should be related to the topic that is being covered in health education class. An example of a family calendar for a middle school nutrition unit is presented in Figure 1.

Examples of Family Involvement Activities in Health Education

Several school health education programs have included parent or family involvement activities. "Heart Smart," a comprehensive school heart health promotion program implemented in Bogalusa, Louisiana, used a monthly newsletter, the Heart Smart Gazette, that featured topics related to curriculum content, suggestions for heart-healthy family activities and announcements of community events related to cardiovascular health (Bernstein, Bellorado and Bruvold, 1986).

The Checkerboard Cardiovascular Curriculum, a health education curriculum for fifth graders in rural New Mexico, was designed to be relevant to Navajo and Pueblo American Indian and Hispanic children. As part of the curriculum, grandparents

Figure 1

Family Activity Calendar for a Two-Week Middle School Nutrition Unit

Week 1	Week 2
Day 1 What are your family's favorite food sources of Vitamin A and C? Do family members have daily sources of Vitamin A and C?	**Day 6** Schedule a time during the next week to plan a nutritious family snack. Discuss the food items you will need.
Day 2 Find a food item in the kitchen that is a complex carbohydrate. Discuss favorite ways to eat this food.	**Day 7** Identify foods that family members enjoy that should be eaten in moderation.
Day 3 What are your family's favorite high-fiber foods? How often do family members eat these foods?	**Day 8** Identify the family's favorite fast-food restaurant. How can foods at the restaurant be ordered to make them more nutritious?
Day 4 Review a food label from a food in your kitchen. Is it a good source of any nutrients? Is it high in fat, sodium or sugar?	**Day 9** Discuss a television advertisement for a food item. What claims are the advertisers making to convince you to buy the food?
Day 5 Discuss family snacking habits. Are the snacks nutritious or nonnutritious? Are there snacking patterns?	**Day 10** Are there situations in which family members feel pressured to eat nonnutritious foods? Discuss different ways to respond.

and elders were interviewed about their childhood eating and exercise habits. In addition, the grandparents and elders cooked traditional but heart-healthy meals in the classroom and discussed the cultural importance of fitness (Harris et al., 1988).

The Home Team program is a five-week correspondence course involving third graders and their parents (Perry et al., 1988). The program used five packets, mailed to the students' homes on a regular basis. Each packet contained a story for the child to read to parents, games for the parent and child to play together, and "refrigerator" tip sheets. Program evaluation revealed that Home Team students reported more behavior change, including a reduction of dietary fat, while students in an entirely school-based program had more knowledge gain. Based on these results, the researchers recommended that school-based programs be implemented in conjunction with home-based programs.

Many packaged comprehensive health education curricula include family involvement components. ETR Associates' *Contemporary Health Series* is a comprehensive kindergarten through grade 12 curriculum. It includes a middle school module entitled *Living in a Family* which addresses topics such as the importance of providing for basic needs of family members, love and affection, relationships within the family system, privileges and responsibilities, and conflict resolution (Post, 1989). Activities included in other modules in the series are designed to involve family members. The series' elementary curriculum, *Actions for Health*, also includes a strong family component. The component, *Involving Families*, offers a series of letters to families to accompany activities in various lessons.

Health Skills for Life, a kindergarten through grade 12 curriculum, includes units at the elementary and secondary levels that address family issues. The curriculum also includes a parent checklist for each grade level. Each checklist identifies the skills the student should develop after participation in the different curriculum units for that grade level (Terhune, n.d.).

The *Teenage Health Teaching Modules,* a secondary curriculum, stresses the concept that health decisions are influenced, supported, promoted and limited by associations with the family. Many of the modules in the curriculum include activities with family involvement. Specific modules that address family issues include *Communicating in Families, Promoting Health in Families* and *Strengthening Relationships with Family and Friends* (Education Development Center, 1991).

Recommendations

Families are essential partners in the promotion and implementation of quality school health education programs. The following recommendations are presented to provide direction, so meaningful programs of family involvement become a reality in school health education.

Encourage family involvement. School staff members need to promote a culture that encourages and enables the involvement of families in all areas of education, including comprehensive school health education. Schools must initiate and sustain contacts with family members; openly acknowledge the collaborative role of the family in children's education and the benefits of this collaboration; present an invitational environment in schools for family members; be aware of and sensitive to the various ethnic, racial, employment and socioeconomic backgrounds of families; and provide numerous opportunities for meaningful activity, both in school and at home.

Include family involvement activities in both categorical and comprehensive school health education curricula. Typically, local school districts use some type of development process to determine curriculum content. While the nature and format of this process varies, the result may be a curriculum that was developed entirely on the local level, the adoption of an existing packaged curriculum, or a combination of both approaches in which the final product consists of both locally developed components and packaged curriculum components. Regardless of the approach used, family involvement activities should be part of the final product.

Train teachers and other staff members in how to maximize family involvement. Research indicates that teachers want parents and families involved with schools (Chavkin and Williams, 1985; Delgado-Gaitan, 1991). Professional preparation in this area, however, is often not provided at the preservice and inservice levels (Chavkin and Williams, 1988; Comer, 1991). Training programs should be developed to address topics such as communication with family members, including verbal and written communication and parent conferences; the development of instructional materials for family assignments; sensitivity to and skill in working with families with diverse backgrounds and living situations; possible problems in working with families; and considerations in working with family members in decision-making situations.

Identify methods to involve families in all areas of the comprehensive school health program. The comprehensive school health program, consisting of eight interdependent components, has become a widely accepted model for school health promotion since first introduced by Lloyd Kolbe in 1986. The eight components of the model include the health education program, school health service programs, the school environment, physical education, the school counseling program, the school food service program, integrated school and community health promotion efforts, and health promotion programs for faculty and staff. As with health education, it is reasonable to expect that family involvement in the other seven components of the model will increase their effectiveness and positive impact.

Develop and implement pilot programs, research projects and evaluation efforts related to family involvement. Health educators need to creatively construct programs for family members, both in school and at home, that involve decision making, educate family members, and promote student/family learning. Educational resources such as curriculum activities, learning strategies and audiovisual materials need to be developed. After development and subsequent implementation, evaluation should be conducted to ascertain the effectiveness of activities, strategies and materials.

In addition, research efforts designed to investigate factors relevant to engaging and sustaining family members in school activities need to be undertaken. In an era of family involvement, funding from programs such as the U.S. Department of Education Fund for the Improvement and Reform of Schools and Teaching (FIRST) and family/school partnership programs must be considered. These grants emphasize achieving a greater balance between the home and school as partners ("The FIRST Grants," 1991). Other sources of funding include comprehensive school health education grants or private foundations.

Decisions for health are affected by all facets of our society. If the promise of quality comprehensive school health is to be fulfilled, family members must be involved as equal partners. Our efforts will be hindered without their involvement.

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Chapter 25

Peer Education: Students Helping Students

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Our contemporary society is confronted with an increase in knowledge that dramatically illustrates the health and social problems of American youth. Many documents illustrate these points well, including studies such as *Fateful Choices: Healthy Youth for the 21st Century* (Hechinger, 1992), *The Troubled Journey: A Profile of American Youth* (Benson, 1990), and several of the 25 reports summarized by Harvard University's School Health Education Project (Lavin, Shapiro and Weill, 1992), including *Code Blue: Uniting for Healthier Youth* and *The National Adolescent Student Health Survey: A Report on the Health of America's Youth.*

Despite so much bleak data (Ayers, 1989; Benson, 1990; Dryfoos, 1990; O'Neil, 1991), we have made considerable progress in providing health information for our youth and have been able to resolve some of their health problems and practices (ASHA, AAHE and SOPHE, 1989; Louis Harris and Associates, 1988). Yet, even with this progress, our ability to influence youths' health decisions and subsequent behavior has been severely limited. Traditional health education prevention programs have often used teacher-dominated lessons with fear-arousing messages to attempt to effect behavioral change in youth. But these programs have not had much success (Botvin, 1986).

One of the reasons for these efforts' lack of success may be society's attitude that adults know what is best for young people and should make decisions for them. As adults, we tell youth we are preparing them for the "real world" of adulthood. Youth receive an unstated yet strong message that their world is less real and perhaps less meaningful. Many school programs offer students very little opportunity to create and develop a sense of ownership of the program.

The philosophy that adults know best abounds in our schools. As Osness and White (1987) said: "Teachers are the major influence on classroom life and learning. The essence of classrooms is instruction—the thousands of daily interactions between teachers and students. Through these interactions, students experience what others have determined valuable to learn." Teachers and youth service professionals have been trained to think they know what is best for youth.

Teachers are used to being in charge; their roles are authoritative and require a great deal of responsibility. However, to create a fruitful partnership with young people, teachers and adults must relinquish some of their control over programs and decisions that influence youth. They must allow youth to have an active voice in the process of their own education and maturation.

To some, this thought is frightening; to others, it provides an exciting new challenge when working with students. Youth, and teenagers especially, need to have an influence and impact on decisions and issues that they care about (Akita and Mooney, 1982). Do they not have a right to be involved in decisions that affect their lives?

Health education has become a crisis-driven field, due to the high incidence of risk-taking behavior among youth. Without question, this has created a sense of urgency for health educators. The experts suggest one of the best solutions is comprehensive school health education programs, prekindergarten to grade 12, taught by qualified and certified professionals. The components of a comprehensive health education program were established long ago and involve the total school community (National School Boards Association, 1991; Willis, 1990).

However, one component has been overlooked for far too long—peers as resources. Benard (1991a), of the Western Regional Center for Drug-Free Schools and Communities, Northwest Regional Educational Laboratory, makes a case for peer education:

> The essentials for creating a peer resource program seem fairly simple and unimposing; why, then, does this model, which has been proven so effective in building academic and social success in youth for years and which has been advocated by educational reformers and preventionists for even more years, remain the exception instead of the mode in classrooms and schools throughout the United States?

Botvin (1990b) and countless others agree that it is time for a paradigmatic change in education involving the adoption of peer resource models. School health education programs, embracing this model, can provide the leadership and vision necessary to accomplish the task of making health education truly comprehensive.

An Overview of Peer Leadership Strategies

Peer leadership can have multiple meanings. The premise behind any peer leadership program is that young people possess the potential to have a positive influence on their peers and the ability to influence them to make a difference in their lives. For some, it refers to student government involvement; for others, it refers to older students tutoring younger students. Peer leadership may encompass programs such as peer helping, peer tutoring, peer education, peer theater, peer advocacy and peer service. All such programs center around the concept of youth participation and empowerment (New York State Youth Council, 1991). Allowing young people to have meaningful involvement in the decisions that will affect their lives is central to any peer program.

Figure 1 provides a brief overview of various peer leadership program profiles. Most programs have peer education or peer helping as their primary outcome and strategy. A peer-leadership program is a cooperative learning effort, perfectly suited for the subject of health education and the variety of topics that come under its auspices. These strategies can be used in a school setting or in a community health organization.

The Wave of the Future

There are many types of peer facilitator programs. Some have developed with little planning, but have been relatively successful because of the caring, commitment and energy that characterizes the people involved. Still others have been even more successful because, in addition, they have developed well-organized and systematic training programs that involve special projects, field experiences and ongoing supervision. This more systematic approach has captured the imagination of most educators and has

Figure 1
Program Strategy Profiles Overview

Peer Helping (peer counseling, peer support, peer outreach, peer helpers, hotlines, buddy programs, natural helpers)	Young people provide personal support and assistance to other youth. They teach a variety of personal and interpersonal skills, including communication, assertiveness, self-esteem and decision making. Additional training is given on specific issues of concern to young people, such as alcohol or other drug use prevention.
Peer Education (youth seminars, youth-run conferences, peer leaders)	Youth educate their peers or younger children on personal/life skills or on pertinent societal issues such as drug abuse, HIV/AIDS or prejudice. Youth learn important skills related to designing and delivering effective presentations or workshops. These programs can range from one-time presentations to intensive semester-long programs.
Youth Advocacy/ Political Involvement (youth lobbying, youth-run voter registration drives)	Young people are involved in political activities that focus on youth issues. Activities could include developing or implementing recommendations or educating peers on the political process.
Youth Involved in Advisory/Policy Decisions (youth advisory boards, youth task forces, youth councils, youth members of boards of directors, speakouts)	Youth become members of the planning, policy-making and advisory bodies charged with planning, delivering or evaluating services intended for youth. Groups may be made up only of youth, or youth may serve on predominantly adult boards.
Youth Theater (teen theater, improvisational theater, roleplay)	Performances deal directly with issues and problems faced by young people. Performances are followed by question and answer or discussion periods to allow the audience to reflect on the performance and talk about how they were affected.

Figure 1 (continued)

Program Strategy Profiles Overview

Youth Media (youth newspapers, murals, youth videos)	Using newspapers, video and other media vehicles, young people deliver important messages to their peers and/or a wider community.
Youth-Run Activities (alternative parties, "drug-free" activities)	Youth plan and help run social/recreational activities for their peers. Youth learn skills related to organizing and managing events.
Youth Service (community service, volunteerism, service learning, conservation corps)	Young people are encouraged to provide a wide array of needed services in their community. Stressing the importance of the experience of service itself, youth service programs involve direct services to people and community improvement projects.
Peer Tutoring	Youth tutor other youth to increase their academic performance. Tutoring builds a positive attitude toward learning and increases the level of responsibility toward the school.
Youth Leadership Development	The primary goal of this type of program is to train youth in leadership skills, including advocacy, public speaking and other skills to help them reach a greater level of participation.

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increased their interest. It is this approach that is most appealing and is the wave of the future in education (Myrick and Ernery, 1985).

Will using peer leadership programs within comprehensive school health education be the "wave of the future"? Certain factors should be considered when seeking an answer. They include:

- the nuances of school reform and restructuring
- current research findings on peer leadership programs
- current prevention strategies that are not working as well in health education methodology

School Reform

American society is changing rapidly and in many ways. One of these changes is evident in our schools and our youth. Study after study indicates that American youth are not achieving as well as their Asian and European counterparts. Students tell us that they are dissatisfied with what they are learning in school. Many of them fail to achieve, and many drop out of school. The statistics are alarming.

Educators are advocating for school reform and restructuring, for changes in school curricula to make it more relevant and reflective of multicultural populations and to encourage student-centered and cooperative learning in our classrooms. These terms have become the educational "buzz words" for the nineties. Most educators recognize that schools need some type of reform. Youth must be involved in the process if this reform is to result in successful change.

In his book *The Predictable Failure of Education Reform,* Sarason (1990) states that:

> unless students are given the right and responsibility (i.e., power) to participate in forums where the constitution of the classroom is forged, any attempts at improving student outcomes through educational reform are doomed to fail. The sense of powerlessness frequently breeds reduced interest and motivation, at best a kind of passionless conformity and at worst a rejection of learning. When one has no stake in the way things are, when one's needs or opinions are provided no forum, when one sees oneself as the object of unilateral actions, it takes no particular wisdom to suggest that one would rather be elsewhere.

The message is loud and clear: teachers can no longer be the "sage on the stage" but must learn to be the "guide on the side," helping young people in cooperative learning experiences. One such cooperative experience is using peer leaders as peer health educators and peer counselors.

Benard (1991b) suggests that "true restructuring must also involve a shift in power to the school's primary constituency, the students themselves. Peer program coordinators and advocates can play a critical role in educational reform by working with others to create a truly collaborative school culture in which decision-making power is shared by all members of the culture." With the number of articles and publications suggesting various ways to reform schools, perhaps as educators we need to reflect on an old Chinese proverb. This proverb can remind us of the importance of involving young people in the learning and decision-making processes that affect their lives:

> Give [people] fish and [they] will eat for a day.
> Teach [them] how to fish and [they] will eat for a lifetime.

And another proverb to remember:

> Tell me, I forget. Show me, I remember. Involve me, I understand.

Research on Peer-Influenced Programs

Although the research on peer leadership programs in health education topics is not abundant or conclusive at this time, peer programs are springing up all over the United States. In New York State alone, the New York State Youth Council has documented more than 177 peer leadership programs that focus on substance use prevention and countless other health issues in schools and agencies. Most are local grass-roots programs; some are nationally known programs such as *Natural Helpers* (Akita and Mooney, 1982).

Botvin's (1986) research with a seventh-grade substance use prevention program using high school peer leaders concluded that the peer-led programs contributed to lower rates for cigarette smoking, drinking alcohol and marijuana use as compared to teacher-led programs. Botvin and Eng (1982) and Botvin, Baker, Filazzola and Botvin (1990) demonstrated that using older peer leaders with the *Life Skills Training*, a broad spectrum health education program, was effective with middle school students.

Ellickson and Bell (1990), of the RAND Corporation, report the use of teen leaders as successful teachers in an attempt to curb drug use during junior high school in a social influence model. Kleep, Halper and Perry (1986) established strong theoretical support for using peer leaders in drug use prevention programs that can be incorporated into the general school curriculum.

Tobler (1986) analyzed many adolescent drug prevention programs and as a result identified preventive strategies that were effective with youth. Peer participation programs—positive peer influence, peer counseling and peer teaching—were determined to be the most effective programs, especially those programs that taught refusal and social skills. Her research suggests that the influence and power of the peer group as a socializing agent was the strongest and most effective factor in developing positive behaviors.

Current Prevention Strategies in Health Education

During the last two decades, the traditional approaches to preventive health education focused on providing health knowledge so young people could make intelligent and rational decisions that would affect their lives. Tobler's research indicated that this approach explains why so many preventive education programs were unsuccessful. All too often this was a "Band-Aid approach," too narrow in its scope. Noting this limitation, health education programs began to focus on specific risk factors, especially those concerning the use and abuse of drugs, alcohol and tobacco. The research of Botvin (1990) and Hanson and Malotte (1985) prompted the development and testing of new prevention approaches. Programs that address modifiable predictors of drug use, such as how to cope with peer pressure, have greater potential than earlier ones that mainly imparted information (Hansen, 1988).

New skill-building programs that focused on several components emerged. These programs emphasized peer pressure resistance training and peer leadership. Stephen Glenn's book *Raising Self-Reliant Children in a Self-Indulgent World,* as well as Jack Canfield's *100 Ways to Enhance Self-Esteem in the Classroom,* were barometers of that time, encouraging educators and parents to concentrate on activities that fostered greater self-esteem, increased self-efficacy and promoted resiliency in youth. Most of what was said or written was an attempt to reduce life-threatening, high-risk behavior in young people.

Currently, prevention efforts in health education are looking at children and teenagers who do not become involved in life-threatening behavior. What keeps certain youths from not becoming involved in using drugs or alcohol, smoking tobacco or engaging in early sexual experimentation? What keeps these youth from destructive behaviors?

The term "protective factors" is emerging in the research literature in the 1990s. Protective factors focus on the "positive"—why some children succeed despite the odds. Past preventive efforts focused on the "negative"—the risk factors that make a child vulnerable and result in negative outcome.

The research regarding protective factors suggests that certain children remain resistant despite the stress or adversity in their personal lives. Benard (1992) refers to the work of Segal (1986) and Garmezy (1991) as reinforcing that "protective factors are those traits, conditions, situations, and episodes that appear to alter or even reverse predictions of negative outcome and enable individuals to circumvent life stressors." Benard observed three consistent characteristics of schools, families or communities that fostered resiliency in children and youth: caring and support, high expectations and opportunities for participation and involvement.

> The strategies are fairly simple and reflect not a need for behavioral interventions as much as for an attitude change—a willingness to share power within a system, to create a system based on reciprocity and sharing rather than control. It is clear from the re-

> search on resiliency that peer helping and cooperative learning, as well as cross-age helping and mentoring, are strategies of reciprocity that work in all systems throughout the lifespan to achieve all three of the protective characteristics—caring and support, high expectations, and participation that, in turn, foster the development of youth with social competencies, problem-solving skills, autonomy, and a sense of purpose and future. (Benard, 1992)

The research provides us with some very clear directions for youth. We must involve them and let them be part of the process: A valuable and powerful way to accomplish these efforts is through peer leadership programs. Benard refers to "the challenge of the 1990s as the implementation of prevention strategies that strengthen protective factors in our families, schools, and communities. What became evident to me in my review of protective factor research literature is that peer helping programs are implicated as some of the major strategies for fostering resiliency in children and youth."

Perhaps another reason that some prevention strategies are not working is that we have failed to involve young people in the process (Benard, 1991b). One cannot help but be impressed by the vast number of reports, commissions, publications and programs that center around the health and education of youth within the last decade. Most have a common mission: the well-being and health of all American children. Although many advocate an eclectic approach to comprehensive school health education, very few of these prestigious reports have involved youth. Most promote health education targeted at youth, with little opportunity for youth to provide input as regards their needs.

Health education is a wonderful subject area to teach. It is the "smorgasbord of education"—so much information and so many topics to choose from. Young people must be involved in the decision-making process around issues important to them. The message to be conveyed is that youth no longer have to be the passive receivers of health education. They can be involved; they can become active assistants in their own learning as well as teaching their peers (Center for Population Options, 1989).

Despite what the experts say about involving young people in school reform and the data research provides regarding peer-led prevention programs, one fact remains a constant. Young people trust and listen to their friends. "The influence that peers have on each other is a well-known axiom in psychosocial as well as educational circles. Peer education, by one's peers, one's fellow students, is an idea that for both health and social reasons has become a medium that needs to be in our schools" (Margulies and Ito, 1990).

The Power of Peer Influence and Involvement

Health education, more than any other subject in schools today, offers an opportunity for students to be directly involved in combating the myriad of problems and issues facing them (Willis, 1990; National School Boards Association, 1991). More than some academic subjects, health education strives not only to impart knowledge but to change attitudes and behaviors. One of the secrets to the success of health education programs is to teach youth social skills. These skills provide young people with the necessary tools to make healthy decisions and avoid risk-taking behavior. Peer relationships influence some if not most of the important health decisions that young people make, and the resource of peer education should not be overlooked (American Association of School Administrators, 1985).

Therefore, it makes sense to teach young people the skills they need to be able to help themselves and their friends more effectively. Teachers and other adults can train older students to work with younger ones. Experts in the field of peer helping agree that the key to "peers helping peers" is providing the necessary skills for young people to be more effective leaders and educators. "The idea of friends helping friends is as old as time. What is a relatively new idea, though, is teaching helping and communication skills to young people so they are able to be more effective friends and helpers. We know kids listen to other kids, for better or for worse" (Painter, 1989).

Historically, a peer health education model grew out of efforts in the 1970s to warn America's youth about the use and abuse of licit and illicit drugs (Bowman, 1990). A limited number of peer leadership programs in health education existed in elementary and secondary schools; the emphasis on peer education and peer mediation was at the college and university level. Two decades later, educators have seen the importance of capturing the energy and excitement of young people to influence other youth through peer leadership programs. Peer leadership programs in health education are coming of age in America.

Youth and teenagers present a vast human resource that schools do not always use effectively or to their fullest potential. When students are involved in structured peer helper programs, they can have a very positive influence on peers and younger children. If they are allowed to have some ownership in these programs, they will definitely influence and support what they help plan and create. Student leaders are not necessarily born; they are developed, nurtured and assisted by caring adults.

Our society has perhaps paid too little attention to the power of positive peer influence and far too much attention to the negative effects of peer groups. A peer leadership program in health education can be one of the most important educational movements of the 1990s. We have a unique opportunity in health education to turn the power of positive peer influence into a productive teaching tool.

One contemporary example of young people being empowered to make a difference is the organization SADD (Students Against Driving Drunk). Young people are beginning to respond to their peers' consistent message, "Friends don't let friends drive drunk." A new attitude and behavioral change are beginning to emerge about drinking and driving among youth. Other voices speaking and reinforcing this same message have also had an impact on the issue:

- the media—radio, television and newspapers
- school programs
- parents
- Mothers Against Drunk Driving (MADD)
- liquor industry advertisements on responsible use

All these voices help to reduce crashes and deaths due to driving while intoxicated. But which influence has had the greatest impact on teenage drinking and teens' drinking and driving? If you ask young people today what has had the greatest influence on this behavior, they will say their friends. SADD works because teens have ownership of the program and govern their own chapters. Enlisting and guiding the influence of students on students is one of the most promising educational strategies available to help youth and adolescents (Center for Population Options, 1989).

Young volunteers, with training and supervision, can be involved in countless ways to provide help to their peers. Their assistance can take many forms:

- teaching
- acting as a role models

- offering support
- being good listeners
- acting as referral agents to proper professionals
- serving as tutors
- acting as student ambassadors
- being empathetic friends

Young people can present health lessons to elementary students on smoking, alcohol and other drug use prevention, HIV/AIDS education, nutrition and fitness, safety and first aid, and other health concerns. They can assist younger students' making the transition from elementary to middle school by assuming a "big brother/big sister" role. They can provide help for transfer students coming into a school district. Serving as student ambassadors, they can represent a school or agency at student "speakouts," state wellness conferences, school board meetings and open school night for parents.

As actors, they can perform in drama productions and school awareness days for peers and adults, providing antidrug messages, HIV/AIDS information, and skits on other health topics of concern to young adults. As writers, they can contribute to school newspapers, parent newsletters and local newspapers on issues facing them. Pen pals can be established within a school district or between districts and other countries. Student-help booklets can be designed and produced for a specific peer population, e.g., handbooks for seventh and eighth graders on "everything you need to know about junior high but were afraid to ask," a high school survival guide on depression and suicide, an elementary school guide on getting along with brothers, sisters and stepsiblings or on coping with your parents' divorce. This forum provides an opportunity for communication with peers and adults and, at the same time, reinforces student writing skills.

Peer helpers can be represented on various school and community committees so their voices can be heard. They can influence their peers to participate in various charity organization promotional programs, e.g., the March of Dimes nationwide "Walkathon" to eliminate birth defects, the Special Olympics for mentally retarded youngsters, or swimathons, bikeathons and danceathons for other agencies. Their influence can be the greatest in organizations such as SADD, where the message about drinking and driving can influence not only the student population but adults as well. Older peers can be excellent role models in helping with elementary and junior high school activities such as the "Just Say No" club.

The Peer Health Partners Program

In the Peer Health Partners program in Cold Spring Harbor, New York, twelfth grade students taught the *Pumsey in Pursuit of Excellence* program (Anderson, 1987) to third graders twice a week for the entire school year. A special bonding took place between the older students and the elementary school youngsters. The ninth grade students designed a crisis-help wallet card with the names and telephone numbers of agencies and hotlines for all the students to have as a reference. The partners also designed and produced a video tape for the parent community to illustrate the stresses teens face in the 1990s. Five senior girls planned and executed an assembly on date rape for all the boys and girls in grades eleven and twelve. Two pairs of high school boys and girls planned and presented a program with local health agency professionals on "Male and Female Health Concerns."

Older peers can serve as excellent role models for preadolescents, helping them to see the negative results of using tobacco, alcohol and marijuana. In one program, high school students led sixth and seventh graders in discussions of stories about how teens made choices about drug use.

Eight senior peer leaders assisted a social studies department in a telecommunications project with Russia, Israel, Spain and Australia. The students researched health issues of teens in those countries, then drew parallels to the health issues of U.S. teens. A shared newspaper is one of the major parts of this telecommunications project. The peer leaders helped to establish a section for one of the newspaper issues titled "Health Concerns of Teenagers Around the World."

Junior high leaders conducted a poster contest on HIV/AIDS for upper elementary grades, with a goal to help children learn about the disease. High school students conducted antismoking lessons for grades three and four. They used smoking dolls to reinforce the message of the dangers of smoking tobacco and secondhand smoke. Classroom teachers used these presentations to support their regularly scheduled health education sessions. Tenth grade students performed a puppet show for elementary students about people with disabilities to teach that all people are special in some way.

These are but a few examples of how students have influenced their own peers or younger children within the health education program. The possibilities are limitless. The resources exist in every school in the form of peer helpers and peer educators; they need only be utilized! Students will give their time, talents, energy and commitment to projects if they know they are part of the process.

What are the major benefits of involving students in this process? They will feel better about themselves. They will experience a cooperative learning environment. They will be involved in service-learning. And they will give something back to their school and community.

Commonalties of Peer Programs

Despite the great variation, all peer leadership programs have specific common aspects (Carr, 1991). Certainly the most obvious is that young people are provided with a forum where they can assist and show they care for other young people. Exemplary programs have the following six qualities:

1. ***There is clear focus for the goals and objectives of the program.*** Most programs have a mission statement or a "blueprint" as a way to satisfy the needs of the student population involved in the project.
2. ***Specific selection criteria are set up for the students who will participate in the peer leadership program.*** The selection criteria vary with each program, depending on the major goals and objectives established. The most important consideration in any selection process for peer leadership is that it not be exclusionary or biased. Caring young people exist in all social groups. Youth from all segments of the school community must be involved if the program is to be effective. Adolescents need recognition. Involvement in a peer helper program fosters their self-esteem and allows them to be part of a special group. This recognition becomes a major motivator for youth, allowing them to be appropriate role models for their peers.
3. ***Training sessions generally consist of a specific curriculum or a program designed out of student needs.*** The number of sessions varies from program to program, as does the actual curriculum. The training must be relevant to young people and provide them with many skill-building activities with hands-on, interactive components as part of the ongoing sessions.

   Skill-building training is crucial to the success of any peer program. Most outstanding programs involve communication, decision-making and refusal skills. These skills enable young people to be effective leaders. In the better programs, students are taught never to deal with serious problems that require professional help. In a school setting, they can be made aware of the professionals on the staff who can assist and help, as well as the proper community resources for assistance.

Accurate health information is necessary for students to be informed helpers and peer educators. The training generally includes many opportunities for youth to learn and grow personally. One essential ingredient in any training is that young people have fun while going through the whole process. After the initial training, regular meetings are very important to keep the group focused and to offer a means of airing their concerns.

4. ***Qualified adult leaders supervise the programs.*** These adults are not only dedicated, but exemplify a caring attitude. They establish themselves as good role models for students. They communicate to young people a sense that they matter and make youth aware of their own intrinsic worth. In outstanding programs, adult leaders view youth as resources. They are not threatened by empowering youth to change their lives and the lives of their peers. Most of these leaders have had some training or experience in peer leadership or peer helper programs. Many have had training in counseling. They are often found in school systems.
5. ***Support from others is absolutely essential to a peer program's success.*** The support may come from the school board, the superintendent, principals, teachers, counselors, social workers, parents, and local or state agencies. The support usually includes time for the adult leader to plan and carry out activities, money for the program, and commitment to the program's goals by all involved.

6. ***Evaluation is ongoing and takes on many forms.*** In many exemplary programs, evaluation continually reinforces the need for an ongoing program. Evaluation provides credibility to any peer leadership program.

Establishing a Model

How does one sort through the hundreds of articles, books and manuals to establish a blueprint for a peer leadership program in health education? A good way to begin is to review the questions asked by Ira Sachnoff (1984) in *High School Peer Resource: A Director's Perspective:*

1. What are the goals of my program?
2. Why am I starting this program?
3. Have I discussed this idea with students, administrators, teachers and counselors? If so, what was their response?
4. How am I going to fund this program, both on a short-term and long-term basis?
5. Who at the school is willing to help and support my program?
6. What are the needs of this particular school? How will my program address these needs?
7. What steps do I need to take in order to put this program together?
8. How much time and energy can I realistically devote to getting this project off the ground? Do I feel strongly enough about peer helping to commit that much time and energy?
9. What will the students be doing once they are trained?
10. How do I plan on recruiting students? What kinds of students am I looking for?
11. Who will staff my program?
12. Who will train the students, and what kinds of training

materials do we have at our disposal? Where can I find a good training manual or guide?

13. Do I have sufficient amount of space within the school to conduct the kind of program I envision? If not, how do I find more space or adapt my program to the amount of space available?
14. What are the individual strengths that I bring to this program? How can I best utilize those strengths when setting my goals?
15. What is a comfortable "beginning size" for my program? How fast do I want to grow?
16. How do I go about putting together an advisory board for my project, and who do I want on that board?

In the Peer Health Partners program established in 1977, a flow chart was designed to illustrate the program to school administrators, parents and colleagues. (See Figure 2.) A peer leadership program in health education does not take the place of the health education classroom or the health education curriculum offered in a school district. Rather, it augments and supports these components to help young people become competent, capable people who can help one another. More important, these programs should allow peers to influence each other in positive ways to affect attitudes and behavior, especially risk-taking behavior.

Evaluating the Program

Sciacca (1990) makes a significant point when he states that "many peer helping professionals lack skills in outcome evaluation and thus avoid this step. Most of us have not been trained to be evaluators." However, evaluations can provide the information

Figure 2

Peer Leadership Ladder for Peer Health Partners Program

Establish the criteria for the advisor.
▼
Select an advisor for the program.
▼
Conduct a needs assessment of the students.
▼
Ask students to whom they would go for help
and advice among their peers.
▼
Review these students with select staff
to establish a core group.
▼
Establish the criteria to be a peer leader.
▼
Develop a mission statement.
▼
Establish the goals and objectives for the program.
▼
Design a blueprint plan for implementation.
▼
Prepare a budget.
▼
Train the peer leaders.
▼
Consider the evaluation tool to be used.

and data to show if the program is effective and to what degree. This data, once collected, can be used as the program continues to develop. It can also be used to assess the immediate effects of the program (Green and Lewis, 1986). Educators will want to know if the program is having an impact not only on the peer leaders, but on the peers and children with whom they interact.

Evaluations in a peer leadership program can take several different forms. No single form is considered best for such a wide variety of programs. Student journals are one of the most popular evaluation tools. The journal becomes a source of communication between the advisor and the peer leader. This private, written diary documents the personal growth of the student. Student journals, although time consuming to read, are without question the most interesting and rewarding form of evaluation. The advisor must always remember that the journal is confidential, unless students allow the advisor to share their thoughts, poems or letters.

A tradition in the Peer Health Partners program was to ask the graduating seniors to share their most memorable experience or a last thought as a peer leader in their final journal entries. The following excerpt from one of these journals is used with permission.

> Remember when you asked me to consider becoming a peer partner when I was a 9th grader? I said "no way." You told me it would be a good experience for me and that maybe I could help my friends, especially John. Well, I came to the first meeting, reluctant of course. I felt so out of place with all the preppies. They treated me like I was a dirtbag! Well that was four years ago—**wow**, I can't believe I am a senior and graduating. The training, the meetings, the beach parties, the trips to the sixth grade classes, the pizza party at your house—**all** these times are my most memorable experiences! I want to thank you and Bernadette for all your help and want you to know this was the best thing I did in high school. **The best**! I gained new friends; I feel so much better about things in general, especially my mom (you know what I mean). I love those kids in the elementary school; well, not all of them. Ha! I hope none of them come up here and ever feel like they are a dirtbag. I guess I did not think too much of myself then but that has all changed. I will miss you and Bernadette and hope the peer partners goes on forever. Keep sending the kids your famous poems and quotes—it helps sometimes when things don't go the way you want. Thanks a zillion!
>
> Love, Carol

Journal entries cannot be easily analyzed or documented to comply with research integrity, but such diaries offer program leaders the incentive to continue their programs and document how helpful such programs are to the growth of young people. These opportunities allow youth to become more self-reliant and empower them to be agents for positive change in their own lives as well as the lives of others.

Pre- and posttesting is another form of evaluation. These tests can be knowledge-based or attitude-based. Just keeping records of the number of children served in a program can provide an ongoing database. The training sessions of the leaders provide an excellent forum to collect pre- and posttraining data. Measurement of behavior changes in the peer leaders or the children and peers they interact with is the most desirable information to collect.

No matter what form the evaluation takes, and for what purpose, questions such as the following should be considered:

- What are the specific goals and objectives of the evaluation?
- Who will be the person responsible for the project?
- Who are the group(s) to be evaluated?
- How much time is available for the project?
- Are there sufficient funds to conduct an evaluation?
- Do you have access to computers to assist in the recording and analyzing of the data?
- What purpose will the final data serve?

The National Peer Helpers Association's *The Peer Facilitator Quarterly* is an excellent resource for peer leadership program evaluation. Each issue has a research and evaluation section; the June 1991 issue (Vol. 8, No. 4) is devoted solely to research and evaluation. (See Suggested Resources.)

Exemplary Peer Leadership Programs

There are numerous exemplary peer-helping programs all over the United States. Several national organizations and agencies support the concept of peer leadership programs both in schools and communities. Contact any of them for assistance in the form of literature, publications, technical assistance, funding information or information on regional or national meetings and conferences. (See Suggested Resources.)

Figure 3 illustrates the great variation that exists among programs.

Figure 3
Exemplary Peer Leadership Programs

Program:	**CHAMPS**
Goal:	CHAMPS stands for "Champs Have and Model Positive Peer Skills." CHAMPS does more than just tell students to say no; CHAMPS works to change attitudes. The program empowers young people through positive modeling and personal responsibility. Youth learn life skills and become positive influences for their peers through action plans, community service and school projects.
Target Age Group:	Elementary, middle and high school programs are available.
Contact:	Pat Epps 14425 N. Scottsdale Rd., Suite 400 Scottsdale, AZ 85254
Program:	**TAP—Teens for AIDS Prevention**
Goal:	Student peer leaders implement a variety of activities with AIDS and HIV prevention messages to change attitudes and behaviors related to HIV and AIDS.

Figure 3 (continued)

Target Age Group: High school students.

Contact: Patricia Dietz, Director of Peer Programs,
Center for Population Options
1025 Vermont Ave. NW
Washington, DC 20005

Program: **STS—Students Teach Students**

Goal: Older students teach elementary school children information about the hazards of smoking and ways to combat peer pressure.

Target Age Group: High school with elementary school students.

Contact: Ed Tokarz
Gulf Coast Lung Association
6501 N. Hines Ave., Suite 103
Tampa, FL 33614

Program: **PACT—Peer Education in Sexuality and Health**

Goal: Program empowers all teens to make informal decisions about important areas in their lives—sexuality, reproduction, drugs, STD and other issues affecting personal health.

Target Age Group: High school students.

Contact: YMCA—Program Services Division
726 Broadway
New York, NY 10003

Program: **Project Smile—Drug and Gang Peer Prevention**

Goal: Students encourage other students to avoid substance use and youth gang activity. Aims to provide alternative leisure-time skills and opportunities for young people;

Figure 3 (continued)

	build healthy families, schools and communities; and collaborate with community agencies and resources.
Target Age Group:	High school students (grades 9-12).
Contact:	Milton Shishido Waipahu High School Waipahu, HI 96797
Program:	**Natural Helpers**
Goal:	Peer helping program is designed to teach young people how to help their friends with small problems before they become serious, and how to refer serious problems to trained professionals.
Target Age Group:	Middle/junior high and senior high school students.
Contact:	Comprehensive Health Education Foundation Roberts, Fitzmahan and Associates 9131 California Ave. SW Seattle, WA 98136
Program:	**Project OZ**
Goal:	Trains high school students to lead refusal skill workshops for grade school children. Teens teach younger children how to resist peer pressure to drink and do drugs, how to find and rely on inner strength for decisions, and alternatives to drug use.
Target Age Group:	Elementary through high school students.
Contact:	Nancy Wisted Coordinator, Project OZ Bloomington, IL 61701

Suggested Resources

Organizations

Carnegie Council on Adolescent Development
Carnegie Corporation of New York
2400 North St. NW
Washington, DC 20037

Center for Population Options
1025 Vermont Ave. NW, Suite 210
Washington, DC 20005

Center for Social Organization of Schools
Johns Hopkins University
Baltimore, MD 21218

City University of New York
Graduate School and University Center
Peer Research Laboratory
33 West 42nd St.
New York, NY 10036

Cooperative Learning Center
202 Pattee Hall
150 Pillsbury Dr. SE
Minneapolis, MN 55455

Girls Clubs of America
441 W. Michigan St.
Indianapolis, IN 46202

International Association for the Study of Cooperation in Education
136 Liberty St.
Santa Cruz, CA 95060

National Peer Helpers Association
P.O. Box 2684
Greenville, NC 27834

New York State Youth Council
Community Center
62 Washington St.
Rensselaer, NY 12144

The National School Boards Association
1680 Duke St.
Alexandria, VA 22314

The Robert Wood Johnson Foundation
P.O. Box 2316
Princeton, NJ 08543

YWCA of the U.S.A.
726 Broadway
New York, NY 10003

Youth Service America
1319 F St. NW, Suite 900
Washington, DC 20006

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Chapter 26

Dealing with Controversy in the School Health Program

Muriel M. Van Patten, MA

Controversy regarding what is taught in comprehensive school health education is here now and is expected to be with us for a while. We must meet controversy prepared, perhaps even invigorated by the experience, and maintain within our schools the necessary curriculum to educate and safeguard our youth.

Our nation's public schools are under an unprecedented degree of pressure to improve student behavior in addition to student performance. Compounding this situation is the poor health status of many children and families, which seriously inhibits the ability of schools to educate (National Commission on Children, 1991). Many students evidence serious social, emotional and physical problems. These problems interfere with students' ability to achieve academically and result in negative influences within the school environment. The need for schools to implement effective programs for the health of their students has never been greater, nor the mandate clearer.

The educator's role is to pursue educational goals and reinforce intellectual honesty, tolerance, decency and the democratic process. To do this, educators must teach critical thinking skills. They must also help students become aware of feelings and understand how feelings and emotions influence their actions. Such skills and understanding are integral to the learning process.

Much of the controversy surrounding comprehensive school health education in the United States today is not the result of normal give and take between political parties that differ mainly in their mix of liberals and of conservatives. The current ideological struggle goes much deeper than political differences. In this age of technological and scientific achievement coupled with serious economic and social concerns, American society seems to be fragmented and suffering.

Youth in Jeopardy

Our youth are in grave, life-threatening jeopardy. They remain vulnerable when they are not armed with information, applied reason and protective behavior in combating the leading causes of death among youth. Adolescence is a time of rapid physical change and a period of learning and experimentation. A review of the leading causes of death among youth ages one through twenty-four shows that almost 70 percent of all deaths are due to the following four causes:

- motor vehicle crashes—31 percent
- other unintentional injuries—14 percent
- homicide—13 percent
- suicide—10 percent

All other causes are at 32 percent (National Center for Health Statistics, 1992). It is important to note that alcohol and other drug use are associated with these four leading causes of death and with many other social problems not reflected in these statistics.

In the United States, more than one million pregnancies occur among adolescents each year (Hoffereth, 1987). Furthermore, significant morbidity results from sexually transmitted disease (STD). Of the 12 million new cases of STD each year, 86 percent are among people ages 15 to 29 (Centers for Disease Control and Prevention, 1991c).

The number of reported AIDS cases in the United States among adolescent females ages 13 to 19 increased a startling 71 percent from September 1989 to September 1990. AIDS has become the sixth leading cause of death for 15 to 24 year olds (National Center for Health Statistics, 1992). Nearly 20 percent of all AIDS cases have been reported among persons 20 to 29 years of age. Because of the lengthy period between infection with the human immunodeficiency virus (HIV) and the onset of AIDS, a significant proportion of those persons acquired the infection in their teenage years.

With prevention in mind, the *Youth Risk Behavior Survey* (YRBS) was developed by the Centers for Disease Control and Prevention to measure priority health risk behaviors associated with the leading causes of mortality and morbidity. The survey was administered to a nationally representative sample of 11,631 ninth to twelfth grade students in 1990.

For the twelve months preceding the survey, 27.3 percent of all students in grades nine through twelve reported that they had thought seriously about attempting suicide. YRBS data indicate an estimated 276,000 high school students in the United States made at least one suicide attempt requiring medical attention during the twelve months preceding the survey (Centers for Disease Control and Prevention, 1991b).

Of all students in grades nine through twelve, the median age of reported first intercourse was 16.1 years for male students and 16.9 years for female students. About one third (33.5 percent) of male students and 20 percent of female students initiated sexual intercourse before age 15. Of all students, 19 percent reported having had four or more sex partners during their lifetime (Centers for Disease Control and Prevention, 1992).

Public school boards of education, administrators and health educators must provide comprehensive school health education that includes strong, effective problem-solving components to strengthen individual initiative and responsibility. The curriculum and instruction for school-age youth must include information and skills focused to save lives. Youth need to learn the use of reason and problem solving to avoid risky behavior and to protect themselves if engaging in risky behavior.

Curriculum Challenges

Federal court decisions have made it clear that state and local boards of education have broad latitude in deciding what may be included in the health education curriculum and what materials may be used in the classroom. With such decisive legal authority for school officials to govern educational programs, why do curriculum challenges continue to flood local school board agendas?

It has been said that education is the most important function of state and local governments (Brown v. Board of Education, 1954), and diverse groups want to shape that function. School boards can be influenced to approve or reverse decisions if enough pressure is exerted. By complaints, petitions and recall of board members (or the threat thereof), community, state and national organizations can significantly affect the public education system. School systems, and thus individual schools, are caught in a crossfire, as the nation struggles to establish a foundation for comprehensive school health education in an increasingly complex political environment. Consequently, elected officials exercise restraint on decisions about what and how education is delivered to avoid confrontations. The result is a less than comprehensive and less than effective health education program.

School systems generally derive vitality from community involvement. Parent and community groups serve as advocates as well as critics of school health programs. Surveys at the national, state and local level have repeatedly shown that the majority of parents favor health education in our public schools. However, organized opposition to health education programs has come from several different organizations, many of which are related by the same religious persuasions or the same point of view. A number of well-organized and well-financed national religious organizations and local groups have mobilized to confront and attack school districts as well as state departments of education.

A democracy tolerates diversity, and in fact experiences a certain vibrancy because of diversity. Children come to school influenced by their parents' belief systems and political preferences—from atheism to fundamentalist religion, and from laissez-faire to authoritarian politics. Opposition in itself is not good or bad, helpful or detrimental. The motivation and desire behind the opposition is what makes the difference. Any analysis of motivation needs to be indepth enough to uncover false fronts such as "I only question to help improve."

Records, over time, reveal true motivations. When the evidence reveals that criticism comes from a genuine desire for positive change, opposition can be of great value. Hostile opposition is expressed, however, when the evidence indicates interference, such as:

- efforts to confuse
- attempts to force the use of financial resources, time and effort of staff

- attempts to separate staff by coming between staff, staff and administration, and administration and school board

An Old Issue

Some members of the religious right condemn "secular humanism" as the evil that controls public education. For many in the public schools, the label of secular humanist may come as a surprise. But although secular humanism is a relatively new reference in the verbal arsenal of many school critics, it represents an old educational issue—whether schools should impose religious absolutes or encourage individual responsibility and judgment.

Horace Mann, the founder of American public education, was involved in this same debate (Rippa, 1984). More than 150 years ago, Mann was bitterly attacked for advocating religious freedom and for warning against the teaching of sectarian creeds in common schools. The debate, and its resulting pressure, have surfaced once again today.

Criticism of schools from religious organizations can be expected in a rapidly changing pluralistic society. The religious movements of today frequently clash with one another; some are extremist while others are not. However, many of these movements are united in their hostility toward secularism, the philosophical base of mass democracy (Toffler, 1984). The public schools are at the center of this clash.

Educators and the public need to understand the secular humanism debate. Secular humanism can be defined as a way of thinking in which humankind and the development of humankind are made the central and dominant themes. Some members of the religious right argue that because the emphasis of secular humanism is on the well-being of humankind in this world, humanism and/or secular humanism constitutes a belief in temporal matters. Such a belief system, they argue, amounts to another "religion."

There are sound arguments as to why secular humanism is *not* a religion. The view put forth by the religious right, however, creates confusion as well as strengthens its political position by attempting to create an opposing pseudo-religion to use as leverage. Secular humanism has become a useful device for arguing for tax credits for private religious schools. The logic is, if public schools are funded for teaching one religion (humanism), why shouldn't public funds be provided for private religious schools.

The term *secular humanism* also has strength in its vagueness and the confusion it generates. It has become a useful label for everything that leaders in the religious right oppose. Thus, values education, sex education, drug education, HIV/AIDS education and global education, as well as many textbooks, can be attacked in the effort to fight secular humanism.

The Michigan Experience

Educational censorship compromises the quality of curricula, and, ultimately, the viability of school health education. It also compromises intellectual responsibility, a crucial element in developing an informed citizenry capable of independent thought. One survey by the People for the American Way (1991) revealed a 117 percent increase in reported school censorship incidents between 1982 and 1986.

The People for the American Way identified the top eleven targets in the 1990/91 list from the people who tried to have books and other material removed from use in the public schools. The Michigan Model for Comprehensive School Health education was identified as a priority for removal. Opposition centered many of the charges against health education in the public schools on this model. Thus, when the Michigan Model for Comprehensive School Health Education is attacked, the effect is an undermining of all public school comprehensive school health programs.

In Michigan, the idea of supporting comprehensive school health education was a priority of the governor's 1985 agenda. Recognizing the need for interagency collaboration, five state agencies (Departments of Education, Mental Health and Public Health, and the Offices of Highway Safety Planning and Substance Abuse Services) developed a joint proposal to support the development of a comprehensive school health education curriculum. The legislature endorsed the proposal and approved funding in the FY85 budget.

With this support from the legislature, the five state agencies formed the Michigan Model State Steering Committee. School health education consultants representing the fields of education, public health, mental health and substance abuse were contracted to develop a kindergarten through eighth grade comprehensive school health education curriculum. Michigan's approved State Board of Education's student-outcome-based education was the foundation for the curriculum development. With the guidance of the steering committee, age-appropriate health concepts, materials and activities were assembled into approximately forty lessons per grade level.

During the 1984/85 school year, the Michigan Model for Comprehensive School Health Education was developed for kindergarten through sixth grade. The state leaders planned and provided training for regional coordinators, who then worked with local school districts to provide teacher inservice prior to classroom instruction. Thirty-four local school districts participated, and 15,780 students received instruction. The number of local school districts requesting teacher training grew. In 1985/86, 98 local school districts were implementing the K-6 Michigan

Model for Comprehensive School Health Education. By 1986/87, 174 local school districts participated, and 158,400 students received instruction.

As the number of local school districts grew (331 out of 530 in 1987/88), the first organized opposition appeared. The opposition came from the Michigan Alliance of Families and centered on the teaching of sex education. A few local school districts were targeted. Classrooms were visited. Individuals and groups appeared before local school boards. Letters to the editor appeared in the local newspaper. Some parents requested that their children be excused from the subject area course (e.g., health education, home economics), while others wanted all sex education removed from the curriculum.

By July 1988, Dads Against Drugs (DADS), an organization formed in 1984, had become a broad-based, multi-issue organization called the DADS Foundation. The founder of the group began traveling throughout the state to mobilize communities to oppose the Michigan Model. The DADS Foundation claimed that the Michigan Model was seeking to establish school-based health clinics.

During the 1988/89 school year, the Michigan Model was featured as an exemplary school health initiative at several national conferences, including those of the American School Health Association and the American Public Health Association. The Michigan Health Initiative Program increased the funding allocation for special projects and contracts, which allowed the Michigan Model to expand its development. Summary data for the 1988/89 school year showed 415 school districts participating and an expected 693,000 students receiving instruction.

By May 1989, the DADS Foundation was offering assistance to those willing to confront pornography, "teen sex clinics," comprehensive health plans and related issues, as stated in their publication, "DADS Speak Out" (DADS, 1989). A public forum organized by the DADS Foundation and held in southwestern Michigan became the focal point for a statewide dispute over Michigan's school health curriculum. The foundation, supported by the Rutherford Institute, a conservative religious foundation based in Virginia, objected to portions of the Michigan Model. The two foundations claimed that the use of calm-breathing exercises was an example of the practice of Eastern religions and led to children being put into an "altered state of consciousness."

Opposition members wanted the program (and any curricula designed to teach problem-solving skills) removed for all children, not just their own. In one community, those opposed to the curriculum bombarded board members and administrators with form letters and freedom of information requests. Despite efforts to educate the community about the real content of the Michigan Model and a reaffirmation of support for the model by the local school board, a group of parents representing eleven families (only three of whom had children in the health program) filed a lawsuit in November 1989 against the White Pigeon School District and the Calhoun Intermediate School District (McDowell, 1991).

The complaint makes the following allegations:

- The Michigan Model violates students' right to privacy under both the federal and state constitutions.
- Federal funds are being used for the substance-abuse portion of the curriculum, which the plaintiffs say is not carried out by licensed professionals and teaches the "responsible use" of drugs and alcohol rather than abstinence.
- The mental health component of the curriculum amounts to the "unauthorized practice of psychology and psychiatry by the teachers."

Four months later, in March 1990, the same parent group tried to recall six of the seven White Pigeon board members. The recall effort failed by a more than two-to-one margin.

Letters requesting information under the Freedom of Information Act soon spread across the state. The letters began to target the health education staff at the Departments of Education and Public Health. This letter-writing campaign continued into 1992. Between March 5, 1992, and March 20, 1992, twenty-five letters were sent by the DADS Foundation president to the Departments of Education, Public Health and Mental Health, requesting information on topics dating back ten or more years in some cases (Michigan Department of Public Health, 1992). Information requests were related to correspondence, staff travel documentation, program authors, organization involvement, concepts and lessons, awards and evaluation.

The DADS Foundation and the Michigan Decency Action Council cosponsored a conference on January 20, 1990, at Calvin College in Grand Rapids, Michigan (Rolfe, 1990). The "What's a Parent to Do" conference was attended by approximately 200 people. The Michigan Association of Sexual Health, the Concerned Women of America, the Kalamazoo Chapter of Right to Life, the Rutherford Institute, the Eagle Forum, the American Family Association and the Information Network for Christian Homes all committed time, personnel and other resources to the conference.

The expansion of the Michigan Model continued in the local school districts across Michigan. In 1992, approximately one million students, kindergarten through eighth grade, were being taught health education using the Michigan Model curriculum (with 1,084,122 kindergarten through eighth grade students in the public schools, according to 1991 data). Four hundred forty-six public school districts (out of 530) were implementing the Michigan Model, and 129 private schools also were providing their students comprehensive school health education through the Michigan Model.

The state legislature entered the debate promoted by the opposition over the summer of 1991, holding hearings across the state. According to a staff assistant for a state senator who chaired the hearings, the hearings were held "to determine the ethicality of the Michigan Model and sort through parental complaints." Both educators and members of opposition groups acknowledge that the debate centers on the question of who controls what is taught in the public schools. A spokesperson for Parents Concerned with the Improvement of the Michigan Model identified the following specific problem areas (Bell, 1991):

- changing children's values through Problem Solving with People (PSP)
- "responsible" usage of sex and illegal substances
- antifamily bias
- deep-breathing (self-calming) techniques that could produce altered states of consciousness
- invasion of family privacy

The opposition groups would like to replace the mental health portion of the curriculum with an authority-based model intended to uphold certain rules, certain laws and certain family values, without teaching decision-making skills and processes. For example, abstinence only would be advocated in the sex education portions of the curriculum, with no mention of contraception or safeguards should youth reject abstinence.

Avoiding Controversy

The question that arises from the Michigan experience is how can local and state boards of education avoid this disruptive, controversial divisiveness? Can the issues of pressure groups be addressed while educational integrity is maintained? Under these conditions, what is the future of comprehensive school health programs?

Once a school district enters the courtroom, legal authority is in control. However, the real power to influence educational programs starts with a concerted effort in communication that culminates in lasting community trust—trust in the value of the programs and the educational policy. School officials cannot avoid pressure groups and controversy, but they can control and perhaps deflect disruptive challenges. Boards of education and administration at the state and at the local level can take significant steps and measures before controversy arises.

Boards of education can promote quality communication by including community and school representatives in the process of developing policies and guidelines. (See Appendix E, Effective Policies for Health Education.) Prepared boards of education have the following:

- written policies and procedures for the selection of curriculum and instructional materials
- written plans for providing educators, parents and other community members an opportunity to review and comment during the selection process
- written procedures for accepting and reviewing parent and other citizen concerns/complaints (Written procedures for filing complaints help ensure that the democratic rights of all are served.)

The selection of educational materials in our society will never be an easy procedure. Differences of opinion and misunderstandings will occur despite the best intentions. Challenges arising from such situations are to be expected as part of the democratic process. With this in mind, it is best to develop policy using a broad community and professional base while adhering to written procedures throughout the process.

Essential components need to be in place at the state and the local level for program success. Those involved with the program must serve as a team. Mutual support—state and local, administrators and teachers, teachers and other teachers, board members and legal advisors all working as a team—will hold the program together. Program and policy roles must work in cooperation. Control issues between local staff and administrators or between the state education department and the local school districts must be reconciled.

Once the program has been approved for implementation, everyone involved in the program must put the program first, eliminating personal recognition issues and control or power issues, so that what is best for students is given priority and support. It is essential for all involved to understand and support not only the instructional materials, practices and programs being used, but also the rationale for using them.

To ensure program content quality, the program must be accountable, with consistent and timely positive critique and revision based on sound pedagogy and current scientific knowledge. Clear goals, instruction strategies and content integrity must all be systematically evaluated and revised when evidence suggests change is necessary to improve the educational opportunities.

Communication with the public must be consistent. A plan that provides guidelines and procedures to use when communicating with persons outside the school (e.g., parents, other community members, government officials, media) must be readily available and followed. An effective plan encompasses the who, what, when, where and why of the inquiry and requires a written record of the follow-up.

Parents, taxpayers and community leaders must know and support what teachers are doing in the classrooms. Controversy and opposition to comprehensive school health education is common; educators must become familiar with the pressure groups that other states or districts are encountering, especially groups tied to national organizations.

The National PTA publishes a guide to help address extremism. The guide states that PTAs should guard against extremism that disrupts meetings and fair procedures. The guide suggests that disruptive extremism infiltrates and takes over the PTA in an attempt to change its goals and purposes, creates community fear or hysteria about an issue or problem, and attempts to coerce or intimidate PTA leaders, school administrators or teachers. Extremists demand that all PTA leaders, school staff and board members share their particular values and beliefs.

The guide recommends the following actions for local PTAs:

- Appoint a committee to study extremism, the objectives and tactics, and hold meetings to discuss the background and threat that extremism poses.
- Organize meetings to discuss strengthening public education and to hear debates on important issues affecting the schools and families.
- Urge school boards to establish written policies, if none now exist, for selection of books and other materials, subjects or teachers. If such selection and complaint policies are in place, study how effective they are in protecting the freedom of students and teachers as well as parental rights.
- Offer PTA representation on all selection, retention and complaint committees for school and community libraries or for classroom materials.
- Stress the importance of adhering strictly to all policies and of retaining material in libraries or classrooms at least until all complaint procedures are completed.
- Emphasize the importance of the First Amendment rights of

freedom of speech and press that guarantee freedom to speak, read, teach, learn and discuss.

- Be sure that only PTA members in good standing are allowed to vote at PTA meetings. Adhere strictly to democratic procedures. Allow for informed debate and reasoned consideration before the PTA adopts any position or decides to join or support other groups. Before inviting or accepting speakers, be sure a balance of views is presented, with adequate opportunity for questions.
- Conduct school board candidate nights so voters can hear what all the candidates stand for.

These actions can be followed by any group in any community. If followed prior to attack, they will reduce confusion and help keep attention on the purpose for which the program was designed—i.e., to prepare youth to understand and apply health-promoting practices throughout their lives.

The public schools can become a target for hostility in an increasingly complex and, thus, for many, incomprehensible world. Some people seem to believe that the point of education is to impart information, not to encourage freedom of thought or open discussion of values or feelings.

There are people who cannot accept positions outside their own religious code, tolerate diversity, or accept a school health education program that results in developing personal responsibility. They reject the use of scientific knowledge within age-appropriate levels of health information. They oppose providing students with knowledge about sexual matters, certain diseases, abuse avoidance (physical and substance), and the use of their decision-making capabilities. Such people may attempt to censor comprehensive school health education.

Much of this disruptive maneuvering is motivated by a closed-code religious morality at odds with contemporary insight and understanding. In an age when knowledge doubles every few years and science is recognized as necessary for survival, young people, to live and grow healthy, must learn to be responsible and in control of themselves.

Together, in an effective and supportive network for health education, policy makers, administrators, researchers and teachers can make a positive difference in the lives of the youth they educate and the public they serve. Their scientific knowledge, social-secular compassion and professional understanding and skills can provide effective comprehensive school health education for the youth of today and the adults of tomorrow.

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The Preparation Challenge

Chapter 27

Preservice Education: Providing Health Knowledge for All Teachers

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> Education and health are interrelated. Children who suffer from violence, hunger, substance abuse, too early pregnancy, depression, or hopelessness are not healthy children. Unhealthy children are children with impaired learning. Education can contribute substantially to improving health. Conversely, a child's health status constitutes a major determinant of educational achievement. To improve academic achievement, schools and other institutions must devote more attention to health concerns. (Lavin, Shapiro and Weill, 1992)

In the last few years, the media have focused much attention on the areas of educational reform and the health status of the people in our country as discrete topics. For those of us in health education, however, these two areas are closely intertwined—so closely, in fact, that we sometimes forget that to many of those outside our discipline there is a less than strong relationship. Reviewing the document *Healthy People 2000* (U.S. Department of Health and Human Services, 1991) reveals an expectation that the schools will provide the education about health necessary to produce adults who are able to combat the plague of chronic disease and killer lifestyles. Yet success can come about only through long-term practice of sound health behaviors and the consistent selection of appropriate health practices.

Statement of the Problem

More than 25 reports were published between 1989 and 1991 illustrating the strong relationship between learning and health status and supporting a comprehensive approach as the most effective way to produce long-term health-enhancing behaviors. In addition, many of these reports cited a lack of coordination and the crisis intervention approach as detrimental to the successful adoption of health-enhancing behaviors. Unfortunately, much of the funding by public and private sources is provided to address a specific critical need rather than a comprehensive health education program (Lavin, Shapiro and Weill, 1992).

The school health education evaluation results reported in the August 1988 *Journal of School Health* clearly established the effectiveness of health education. This study, representing one of the most well-controlled investigations of its type, concluded:

> that health education works; that it works better when there is more of it; and that it works best when it is implemented with broad-scale administrative and pedagogical support for teacher training, integrated materials and continuity across grades. It works best where there is attention to the building of foun-

> dations of basic health knowledge, rather than starting with categorical health problems later in the academic career of pupils. (Green et al., 1985)

Comprehensive health education, when applied appropriately and consistently, has been proven effective in delaying or preventing health-damaging behaviors. Delaying the onset of experimentation with health-damaging behaviors increases the likelihood that the experimentation will not result in long-term practices detrimental to health.

Yet it is evident that the academically trained or state-certified health teacher cannot shoulder the responsibility for comprehensive health education alone. The responsibility of producing healthy adults belongs to all those directly involved in the educational process, as well as to the parents and the communities in which we live. School-based educators in all subject areas also have some responsibility to protect and enhance the health of our youth and to assist in the development of the skills necessary for students to make good choices related to health practices and select good health care providers.

All teachers, and all other school personnel, need to have a basic understanding of their roles in the comprehensive school health program.

The Importance of Preservice Education

The most effective way to ensure that all teachers become educated about and comfortable with health concerns and issues is through preservice education. Preservice education is the term used to describe the total teacher preparation program; it includes those courses taken prior to graduation and certification as a teaching professional. Preservice education is the direct responsibility of the colleges of education, or similar entities whose primary mission is to produce teachers. Preservice education curricula usually evolve out of three areas:

- accreditation standards (e.g., NCATE)
- opinions or concerns of practicing professionals (e.g., instructional computer courses)
- state legislated or mandated content (e.g., HIV/AIDS education)

Historically, the most effective way to ensure that specific concerns are addressed during preservice education is through the efforts of professional organizations working with parents and the community. These groups work together to identify needs and to encourage legislation that mandates specific instruction to ensure that all teachers receive the necessary content information or skill. Legislated changes are usually given an effective date within a year of passage. These changes, therefore, are much more immediate than those changes associated with an accreditation process.

Why All Teachers Need to Know About Health

The primary reason for educating all teachers about health is the responsibility teachers have for the well-being of students. According to Schaller (1981), "All teachers are expected to have competencies in detecting and handling the health problems of school age youth and they must understand their own roles in the school health program." Teachers are in an excellent position to observe alterations in a student's appearance or behavior that may signal a health problem. To more effectively conduct these daily visual checks, the teacher must be informed about what to look for. Each student's success depends on the ability of his or her teacher to monitor for potential health problems. "A student who is sick, who is inadequately nourished, who abuses drugs or alcohol, who is pregnant, or who has an unintended child to raise is not in good position to learn. It is clear that children must be healthy to be educated and they must also be educated to be healthy" (Healthy Networks, 1992).

It seems that everyone is aware of the impact of lifestyle behaviors on early mortality, but many fail to realize that the behaviors that eventually result in chronic disease and/or premature death develop during the early years of life. Children are at greatest risk to develop negative lifestyle behaviors during adolescence. This is also the time of development when young people are most sensitive to their peer group and have the strongest need to be liked by others in that group. Adolescents are more vulnerable to peer pressure and more resistant to any form of authority than children at any other stage of development, which creates a very difficult situation for parents and teachers.

Educating people of any age to be healthy must occur in a consistent, sustained manner. An important element of this sustained effort is the environment or surroundings. All teachers need to be well informed not only about health information but also about the importance of environment, including the social structures needed to support positive health behaviors. The *National Adolescent Student Health Survey* provides a good example of how we are influenced by what society tells us is OK. Almost 17 percent of the students surveyed had never tried alcohol. On the other hand, about 15 percent could be described as regular alcohol users. Forty-three percent believed their friends would disapprove of their using alcohol. However, when asked if friends would approve if they smoked a cigarette, 76 percent believed their friends would not approve. Smoking has become less socially acceptable in our society than has consumption of alcohol.

If all teachers knew how to best prevent health-harming behaviors and would fully embrace a responsibility to ensure that the school environment supported health-benefiting behaviors, we could begin to have an impact on what the American Medical Association has dubbed the "social morbidities." There is a broad-based consensus that the appropriate preventive programs are already developed. What has been lacking is a coordinated effort at any level to ensure adequate funding, consistent delivery and a design that meets the needs of those we are trying to serve (Lavin, Shapiro and Weill, 1992).

The crisis in health care plaguing our country increases the need for preservice programs that provide new professionals with the skills to teach students how to practice health-enhancing behaviors and the ability to recognize health problems in their students. It is estimated that one out of five adolescents in the United States has at least one serious health problem. This ratio increases in poor and minority youth, as does the probability that available health care resources are inadequate (Schilitt, 1991).

Many schools today do not have school nurses. Those that are fortunate enough to have a school nurse may share this person with other schools. As the number of families without primary health care increases, the demands on schools for basic health services may also increase (Nienhus, 1987; Oberg, 1990). Without specific health instruction during the preservice program, the teacher will be poorly equipped to deal with overt health problems or identify more covert problems.

Needs of the Classroom Teacher

The classroom teacher in preschool through grade five is placed in a difficult position, as she or he is usually responsible for both identification of health problems and health instruction. This responsibility demands knowledge of health content and the visual indicators of health problems. Although there have been numerous national mandates and position statements heralding the importance of schools and teachers in promoting the health of children and youth, state departments of education and local school districts have not responded in a consistent manner. Nor in general have the colleges of education, even those with health science education programs.

Preservice for classroom teachers should be designed to integrate the recognition of health problems with health information. Classroom teachers also need to be well informed about community resources available to provide support and assistance. Knowledge of these resources becomes particularly important if there is no school nurse available. Many school districts have established procedures for reporting suspected child abuse and communicable disease or infestation, but such reporting is limited in scope. There are any number of other health problems that could be positively affected by early recognition and appropriate intervention.

Competencies for All Teachers Related to Health

Every teacher needs to recognize her or his unique role in influencing the lives of students. Teachers influence through classroom instruction and their daily interactions with students and other adults in the school. There are a number of texts developed for use in preservice programs that focus on what the elementary teacher needs to know and be able to do. The authors of these texts usually include teacher competencies related to the school health program. These competencies can be placed in the following four categories:

- recognition of common health problems
- knowledge of appropriate referral procedures
- basic health content information with methodology
- the teacher's place in the total school health program

In addition, effective teachers will usually display a positive outlook and genuinely enjoy what they are doing.

Providing health information is usually not sufficient to affect behavior. Attaining or maintaining good health involves certain behaviors that are not always easily practiced. The most effective way to influence student behavior is to find ways to fully integrate the desired behavior into all aspects of the school day. All school personnel, the social structure and the environment must be in favor of and support the desired behavior. For example, if students are learning ways to resolve conflict, and teachers or others in the school are not using these conflict resolution methods, the information may be learned but the desired behavior may never occur. Behaviors that are supported by the social structure, by what the child is seeing modeled, and by the skill she or he has learned are more likely to be consistently practiced (Bedworth and Bedworth, 1992).

"Tomorrow's teachers will function as members of a social service network with the primary aim of educating students....The school and teacher of the future must function as an enabler of children across multiple dimensions (body, mind, and spirit) if they are to reach their potential of contributing to society" (Cleary and Gobble, 1990). One mechanism to assist teachers to meet the challenge tomorrow's students will provide is to include a health course for teachers in the preservice program.

Advocating for Legislation

State requirements mandating that all teachers seeking certification have some formal course work in health science education seem to be limited to the state of California. Although some other states require an elementary health course for those certified in elementary education, these courses usually focus on health content and instructional methodology.

Even though many recognize the need for all teachers to be knowledgeable about matters related to health, few formal mechanisms exist to ensure that this occurs. Although there are a number of national initiatives directed at support of comprehensive school health programs, translation to the state and local level is often haphazard and of limited effectiveness. In those areas where the local school administration is supportive, the programs usually prove to be effective.

In the state of California, the education code section dealing with the health education requirement for all teachers identifies (but is not limited to) instruction about the effects of substance use (including alcohol and tobacco), nutrition and indicators of child abuse. As of 1992, the code also includes verification of CPR training. Teachers holding full certification prior to the implementation of this legislation are required upon renewal to meet the health course requirement.

Most of California's teacher preparation programs meet the requirement with one course. This course is designed to address the preschool through grade 12 school population. California State University, Long Beach, has taken a pedagogically sound approach by providing two different courses, one for elementary teachers and one for secondary teachers. All educators recognize the distinct differences in the developmental levels of children. The health concerns are very different also. As previously noted, the elementary teacher is likely to have the primary responsibility for health instruction as well as the identification of potential health problems.

At the secondary level, students can be expected to take a more active role in decision making related to all areas of life, including matters affecting health. The behaviors that secondary students may be practicing or considering are likely to be different because of their increasing independence. Secondary students may have easier access to money and to unsupervised time alone with their peers.

Prospective secondary teachers will be interested in how to integrate health information with their own subject matter, especially if there is a great deal of attention focused on a particular health issue in the community. Effective teachers use current local events to enhance educational opportunities for students. Adolescents may still be developing their ability for abstract thinking. Using relevant daily events to illustrate concepts can facilitate the students' ability to take learned information and apply it to other situations. Health concerns or issues offer an almost daily opportunity to do this.

Schools in the United States enroll about 46 million children and youth each year; they thus provide an excellent place to address health needs. Although all teachers need to know about health, it seems that almost all states are in need of additional legislation to ensure that this occurs. The best way to spark legislative action is to use knowledge of the political system and begin the process of advocacy.

Building a Coalition

The steps in getting any legislation passed are generally the same, but the first step is always getting the advocates together to assess and identify any potential opposition. Opposition usually comes from two groups, those who do not understand what is to be accomplished and those who will be charged to carry out the requirement. The latter may be theoretically supportive but be concerned about the economics (both time and money) of implementation. Or they may feel that all issues of preservice education should be determined by those charged to provide it.

Once the advocates have come together, they must assess what each advocate brings to the group and identify other groups or people who may have an interest in promoting legislative action. Coalition building often brings divergent groups together, so care must be taken to ensure that everyone is addressing the same agenda. Groups that are more interested in their own issues than in promoting legislation to ensure that all preservice programs include education about the health of children and youth should be avoided.

Tracking the Legislation

The next step is to identify key people to track the legislation. If one of the advocate groups has a legislative lobbyist, this person will often be able to take on this responsibility. The tracking process is vital to success; the coalition must be alerted to mobilize forces if the legislation seems to be encountering resistance or be deemed unimportant. Legislators need to know that someone is monitoring the progress, or lack of progress, for any piece of legislation.

Developing a Goal Statement and Action Plan

The advocacy group needs to develop a goal statement. This simple statement says what is to be accomplished with the legislation. The statement should be positive, clear and concise. The goals should be discussed often and with as many of the advocates as possible. All advocates must have a clear understanding of the goals and the steps that will be taken to reach them. All members of the group need to be speaking the same language. For example, if the goal is an across-the-board requirement for every prospective teacher to have a health course, how will such a requirement be implemented? Will every preservice program require this course, or is it sufficient to have only a requirement for the renewal of teacher certification?

In developing the goal statement and other supporting documentation, the advocacy group should provide accurate information in specific areas. A clear statement as to why this problem deserves the attention and resources that will be needed to ensure success must be included. Identifying why such legislation is important to the general population as well as to the advocates increases the base of support. Broad-based need and interest attracts legislative attention.

Details must be provided as to how the concern was identified. What are the political, economic, and cultural forces demonstrating the need for all teachers to be knowledgeable about health issues? Reviewing the background of these forces will help advocates clarify the need as well. The more discussion there is, the more clarity the issue will have, and the easier it will become to visualize how legislation will help. It is also necessary to identify the current statutes in the area of teacher preparation. Are there existing statutes that could be amended to include this requirement for health? Are there specified areas of health that already exist in statute, such as first aid/CPR or HIV/AIDS education?

Approaching Legislators and Committees

What committees will have to review this legislation? Often any legislation involving health and education will have to be reviewed by all committees with authority in either area. The designated lobbyist needs to identify the appropriate committees. The list of committee members can be reviewed with the advocate group. Who knows whom? Could certain legislators be contacted to introduce the legislation? It is always helpful to have more than one sponsor. In states where there are dual bodies, it is necessary to have sponsors in both houses. The willingness, or lack thereof, of legislators to sign on to the legislation can be a clear indication of how difficult the battle ahead will be. "White-hat" issues usually go to committees and are ultimately forwarded for a vote with a number of sponsors.

Do legislators need to be educated on the topic? Developing easily reviewed fact sheets and identifying specific strategies to educate the necessary persons will enhance the chances of success. *Healthy People 2000* and the *National Adolescent Student Health Survey* are excellent sources for support documentation. These documents clearly illustrate the need for all teachers to become full participants in the comprehensive school health program. Everyone who is a member of an advocate group is also a source of information. The more people you involve, the better. But remember that everyone has to have a clear understanding of what it is you are trying to accomplish.

Establishing a Grass-Roots Network

A grass-roots network is essential to the passage of any legislation. Encourage everyone to write, call or visit with representatives in their home towns and at the capital. Writing letters to the editors of local papers, speaking to local organizations, gathering endorsements from local groups and notifying the lobbyist and others of any significant local activity related to the issue are important functions of the grass-roots network. In addition, monitoring local newspapers and radio, analyzing local and public response to the issues, and reporting this information to the coalition help to keep the group on the offensive and ahead in the game.

Sharing the Responsibility for Health Education

Legislative action is not foreign to most health educators. Over the years, many have expended their professional energies to ensure that academically prepared teachers are assigned to teach required health courses. This has left little energy for health educators to lobby that all teachers should have some health background. Some lack of interest may be due to fear that shared responsibility could threaten the place of fully certified health teachers. Also, many teachers certified only in other disciplines are insecure with issues that are commonplace in the health curricula. This insecurity comes from a lack of knowledge and skills necessary to address student questions about sensitive topics.

Over the years, health educators have done little to encourage legislated mandates for all teachers to be better prepared about health matters prior to their certification as teachers. We may be overlooking potential allies when we fail to seek ways to ensure that all teachers have some knowledge about the complexity of health instruction. Health information is everywhere, which makes it easy for many people to assume that they are more knowledgeable than they actually are.

Providing greater information to all teachers may enable them to understand the complexity of altering or developing health-related behaviors. It would also enable other teachers to better understand the drives that encourage students to practice negative health behaviors. We all do things that affect our health. The educational setting is an effective way to reach a large number of youth at a time when they are receptive to developing positive health behaviors.

How Colleges of Education Can Respond

If a campus has a program in health science education, or some similar curriculum where Certified Health Education Specialists are on the faculty, liaisons with these departments can be established. The health science education department could provide courses for those preparing to become teachers and thus benefit from the additional credit hour production. If the department is already understaffed and cannot meet the needs, other options must be explored. These other options may include identifying potential adjunct faculty from local public schools or public health departments or from among health education consultants. The main criteria for these adjuncts would be a master's degree and certification as a health education specialist. The Certified Health Education Specialist (CHES) credential provides an excellent way to ensure that the prospective adjunct faculty member has a good foundation in health education. Prior teaching experience is also desirable.

There is also a need to provide greater information to those providing the preservice program. If it is beneficial for all school personnel to be knowledgeable about health, it is important to encourage faculties of the colleges of education to become knowledgeable as well. This can be more easily accomplished on some campuses than on others. One way might be to provide faculty release time to attend a workshop or class designed to provide college-level faculty with greater understanding of the theoretical and practical aspects of health behavior and the health problems encountered in the schools on a regular basis.

The workshop could be coordinated by the college of education but actually taught by health educators and public school personnel. The health educators would provide the health education background information, while teachers, school nurses and student services staff would provide insights into the current problems faced each day by teachers and other school personnel. The colleges of education could thus become a fully functioning part of the solution to the broad-based problem of improving the health of all our youth.

The nature of the comprehensive school health education program is not conducive to compartmentalized thinking and knowledge of only one particular content area. This is especially true if we are to prepare students to face the challenges of the future. Those involved in teacher preparation have a responsibility to prepare teachers to address these issues. Effective schools of the future will take a team approach. The preservice program must provide new teachers with the appropriate skills to be able to work in this environment (Cleary and Gobble, 1990).

If we want all teachers to be knowledgeable about health, all educators, regardless of level, must be knowledgeable. Colleges of education should serve as models for the public schools. They must provide environments that support the importance of health for all students. Families, schools and communities all have important roles to play in helping individuals maintain good health behaviors. The schools are once again becoming a focal point for the community. Schools are a natural point of delivery for services and offer a way to reach every family with children.

Preservice education programs that provide prospective teachers with the foundation necessary to meet the responsibility for health education should address the competencies identified in Figure 1. These competencies are not intended to be all-inclusive, but they can serve as a guide to initiate a preservice course. The listed competencies have been adapted from those used in current preservice courses and from those identified by the Joint Committee of the Association for the Advancement of Health Education and the American School Health Association to define competencies for the elementary (K–6) teacher.

Figure 1
Health Science Education for Teachers Suggested Competencies

Purpose

To explore major health problems that affect the school age child and/or have implications for education. Also, to help prospective teachers meet a significant responsibility and an important element of education. Teachers can and do influence the lives of their students by their actions and by their teaching. Teachers need to be knowledgeable about health problems and the observational indicators that a health problem exists.

Expected Outcomes

Prospective teachers will be able to

1. Identify, define and explain the contemporary concepts of health and health education.
2. Analyze factors influencing the development of health attitudes and behaviors.
3. Identify major causes of illness and death.
4. Cite factors influencing the development and advancement of comprehensive school health education.
5. Define the components of the comprehensive school health program, as currently identified by the Centers for Disease Control and Prevention.
6. Demonstrate the ability to identify creditable sources of information about new developments in areas related to health, education, health education and health promotion.
7. Identify opportunities for correlation and integration of health information with other subjects and describe ways this can be accomplished.
8. Compare the relationship between growth and developmental characteristics and appropriate health education lessons.
9. Identify the role of community health agencies in promoting the school health program.
10. Interpret the health information from a given cumulative record.
11. Identify when and how to implement appropriate emergency procedures and first aid, including, but not limited to, CPR.

Figure 1 (continued)

12. Identify signs and symptoms of possible student health problems.
13. Describe the process of teacher observation of school-age youth.
14. Select the appropriate actions to be taken when encountering students with health problems.
15. Relate the nutritional needs of school-age children to the school lunch program.
16. Identify motivations for and alternatives to student drug use.
17. Identify the responsibilities of teachers and school personnel for child abuse prevention.

In addition, elementary teachers will be able to

18. Select appropriate educational strategies for health content information based upon the child's age and ability.
19. Demonstrate instructional strategies that foster a wellness lifestyle.
20. Identify appropriate sources of health content information for use in the development of instructional plans.

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Chapter 28

Why Is Inservice Training Essential?

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One definition of the word *train* is "to make proficient by instruction and practice, as in some art, profession or work." Training is defined as "the act, process or routine of one who teaches" (*American Heritage Dictionary of the English Language,* 1970). Inservice training refers to training that takes place after a person has begun to practice a given profession. Teacher inservice training is an ongoing process necessary to establish and maintain effective comprehensive health education programs in our schools and communities (Gilbert and Gold, 1985). Inservice training programs should be a part of a process that includes the following (Middleton et al., 1991):

- parent and community involvement
- administrative support and involvement
- a documented, planned, multifaceted and sequential program that addresses and integrates education about a range of health issues
- teacher training

Inservice training has been called the essential component of curriculum implementation (Lohrmann, Gold and Jubb, 1987).

Why Inservice Training Is Critical

When health education programs have been evaluated, research indicates a positive relationship between teacher inservice training and curriculum implementation. The importance of teacher inservice training was firmly established in the reported results of the School Health Education Evaluation Study (Connell, Turner and Mason, 1985). In this comparative study of the fourth through seventh grade components of *Growing Healthy* (School Health Curriculum Project) with three other curricula, all four curricula were effective in influencing student health knowledge, attitudes and practices.

However, the degree of effectiveness varied with level of program implementation, and level of implementation was directly related to whether teachers received inservice training and the length of such training. Those teachers who received complete inservice training were most likely to implement the curriculum. The findings of this study, according to Greenberg (1985), indicate that health education works; that it works better when there is more of it; and that it works best when it is implemented with broad-scale administrative and pedagogic support for teacher training, integrated materials and continuity across grades.

The study also found that the full benefits of health instruction and the greatest effects on student attitudes and reported practices were achieved when a sizable commitment of classroom hours was made to a health program. The evaluation data also suggested that teacher training and program support materials were a positive influence on implementation of a school health program and that full implementation was important to the success of each participating program (Connell, Turner and Mason, 1985).

When conducting research to determine if teacher perceptions, attitudes and practices were influenced by inservice training, Burks and Lohrmann (1991) found that the degree of health curriculum implementation could be predicted by teachers' attitudes toward teaching health and toward participating in inservice training. The more positive teachers' attitudes were toward teaching health and participating in inservice training, the more likely they were to implement a health education curriculum.

Others who have evaluated the implementation of health education curricula also found inservice teacher training to be an important factor that determined program implementation and, in turn, program effectiveness (Nelson, Poehler and Johnson, 1988). Teachers who were provided with a structured pre-implementation training program that emphasized fidelity of delivery of the curriculum implemented the curriculum with a significantly higher degree of fidelity than did untrained teachers (Ross et al., 1991).

Student outcomes were also affected. Knowledge and attitude scores were significantly higher for classes taught by trained teachers than were scores for classes taught by untrained teachers (Ross et al., 1991). Fors and Doster (1985) noted that administrative support for health education programs and teacher inservice are both important factors that influence student knowledge, attitude and behavioral outcomes. Finally, Kolbe and Iverson (1981), in describing levels of innovation in the implementation of health education, state that training, teacher commitment and resources are prerequisites for program success.

Components of Inservice Training

Inservice training should address the following (Middleton et al., 1991):

- a thorough review of health education content
- modeling of educational strategies and techniques appropriate for specific age groups, including adaptations for multicultural relevancy
- familiarization of teachers with available resource materials and speakers
- enhancement of teachers' ability to involve parents in the educational processes of their children
- enhancement of teachers' understanding of their varied roles as health educators (e.g., instructor, confidant, model)
- development of teachers' confidence and acquisition of facilitating skills
- enhancement of the teaching skills needed to interact with parents and community

Several authors have identified components of successful inservice programs, programs that offer teachers the opportunity to acquire and maintain proficiency. Teachers report that inservice training is more meaningful if it meets their needs; they therefore should be involved in identifying those needs (Lawrenz, 1984; Washton, 1985). Administrative support is vital in persuading teachers of the importance of the inservice (Fors and Doster, 1985). Modeling by trainers is the most important aspect of training; strategies for effective instructional processes for health education should be modeled by trainers (Middleton et al., 1991).

Hutson (1981) offered the following suggestions for improving inservice education:

- The training should meet carefully identified needs, and decision making should include the teachers.

- The training, supported by local school administration, should be at local schools and be directed toward changing teaching.
- The training should involve agencies outside the school.
- Professional incentives should be offered.

In short, successful inservice trainings need teacher planning involvement, administrative support, modeling, incentives and the involvement of community agencies and organizations.

Time Frames for Inservice Training

Inservice training should be offered to meet the needs of the teacher as well as the school district. Inservice training may range from one- or two-hour sessions to one- to ten-day sessions.

A major consideration in scheduling is whether graduate credit is being offered for inservice. Graduate credit has been recognized as an appropriate incentive to encourage teachers to become involved in inservice training. This training subsequently leads to implementation of quality comprehensive health education programs (Lawrenz, 1984; Burks and Lohrmann, 1991). If graduate credit is a concern, institutions of higher education will determine the required number of contact hours needed for a specific number of graduate hours. (Other suggested program incentives are addressed later in this chapter.)

Another consideration is the time needed to model training techniques. For example, when conducting inservice training for a specific curriculum (e.g, *Growing Healthy, Teenage Health Teaching Modules, Contemporary Health Series*), ample time must be scheduled to ensure that teachers master the content as well as the process. Teachers need time for the following tasks:

- orientation
- experiencing the components of the curriculum

- preparing needed classroom curriculum materials
- conducting culmination activities

Hawley (1980) found that training, especially in sex education, was successful only when implemented during large blocks of time. To solve this problem, Hawley suggests conducting training during the school year on four consecutive Saturday mornings in four four-hour sessions. An alternative to training during the school year might be to train the first or last week of summer vacation.

Scheduling training times can sometimes be a problem. Obviously, training time should be proportionate to the difficulty and comprehensive nature of the training. Offering inservice training at the close of a school day, during holiday seasons, or during the middle of the summer months has been found to be nonproductive. Time of day, month or year of inservice training should be mutually agreed on by teachers, school administrators and persons representing institutions offering the training.

Who Needs Inservice Training?

Before training models can be addressed, the following question must be asked: Who provides health instruction in our schools? At the elementary level, teachers who are generalists are certified by state departments of education to teach kindergarten through grade eight in many states. Most elementary teachers are asked to teach health with no required training (Pruitt, 1985). Only a minority of these teachers have any preservice courses in health instruction (Anspaugh, Ezell and Goodman, 1987). Inservice training provides these teachers with specific information about the organization, course content and classroom activities of health education curricula. It also provides tangible evidence of a school district's commitment to health instruction (Connell, Turner and Mason, 1985). Given sufficient time for classroom instruction and adequate teacher training with the appropriate materials, elementary school health instruction can be effective (Sutherland, 1985).

Forty-five states have secondary certification standards in health instruction (Kolbe et al., 1987). However, many teachers are dually certified to teach health and another subject, usually physical education. Even when certification standards are in place, they can be circumvented. The New York State statute clearly mandates that health education be taught by teachers certified in health. However, the New York health education professional organization won a suit against the New York State Education Department because the state agency allowed 44 percent of teachers teaching health to do so without certification. Secondary school administrators routinely assigned one section of health education to a number of teachers rather than numerous sections to one or two teachers (Lohrmann and Zimmerli, 1987).

Because health education does not always assume a prominent role in the school curriculum and is sometimes taught by inexperienced teachers, teacher inservice training is frequently needed (Lohrmann and Zimmerli, 1987). Both elementary and secondary administrators should also experience inservice training that promotes comprehensive health education. This training is vital because a commitment to school health education, especially in the primary grades, is usually made at or below the school district level (Connell, Turner and Mason, 1985).

Administrators make budgetary decisions. Unless they are convinced of the importance of teacher training and acquisition of support materials for health education, they may follow a more conservative course by selecting a categorical program that minimizes training and material costs. As previously stated, teacher fidelity regarding implementation of curricula is positively correlated with perception of administrative support and completion of inservice training (Hutson, 1981).

Four Training Models

Since inservice training is usually needed for both elementary and secondary teachers, as well as school administrators, which training models can be used?

A training inservice model that has frequently been replicated, or modified and replicated, was created by Richard Foster, superintendent of schools in Daly City, California, and Helen Delafield, school nurse from the same district, in the late 1950s. The model offered a plan to train a team, including two teachers, the building principal, the school nurse and a consultant, such as the curriculum coordinator, from participating school districts. During an intensive sixty-hour, two-week workshop, attendees participated in the same experiences they would later replicate in classrooms. After implementing the unit (focused on preventive measures against heart disease), teachers then trained other teachers in their district to spread the units laterally across the school district, to other districts in the state, and in some cases to districts in other states.

In the late 1960s, the federal government indicated an interest in the curriculum. Limited funding was provided through the National Clearinghouse on Smoking and Health to train school teams from around the country to see if the concepts developed in Daly City would create similar enthusiasm elsewhere. Partial funding for school district participant training expenses and purchase of curriculum materials for implementation of one unit per year was provided in participating districts (Smith, Redican and Olsen, 1992).

Since 1972, the University of Central Arkansas in Conway, using a modified training model patterned after the Daly City model, has been promoting a comprehensive approach to school health education by conducting five-day teacher inservice training for teams from Arkansas school districts and districts in surrounding states (Burks, Olsen and Redican, 1982). The teams consist of two teachers per grade level, a building administrator, school nurse or counselor, and often a parent (who may be a school board member or community leader). Frequently the school health coordinator, identified as a person to be included in inservice (Lohrmann, Gold and Jubb, 1987), is a designated teacher of health or a building principal.

At first, the training was conducted for elementary teachers only. During the past ten years, the training has grown to incorporate all grade levels (kindergarten through 12). Funding, in the form of grants and contracts, has been secured from categorical health funding sources and used to provide training to implement comprehensive curricula. School districts often commit funds and participate in teacher inservice training for two to three consecutive years to phase in the entire curriculum (K-12). Once a district has participated in training, the trained teachers are committed to conduct training to spread the curriculum laterally across their school districts. Follow-up and evaluation, targeted toward student knowledge, attitudes and behavioral outcomes, are ongoing (Boswell, 1992).

A third training model uses a one-day training that is obviously less experiential than a five- or ten-day training. This model demonstrates how to incorporate specific curricula modules with a comprehensive health education approach (Middleton et al., 1991). The one-day training, designed for secondary teachers and administrators, addresses the following:

- a definition of comprehensive health education and an expla-

nation of how the curriculum contributes to comprehensive health education
- modeling of skills and strategies teachers will use to implement the curriculum
- an opportunity for teachers to participate in experiences that will later be replicated in their classrooms

The fourth inservice model is a "trainer of trainers" model (Williams, 1987; Association for the Advancement of Health Education, 1992). Using this dissemination model, national project staff conduct inservice for a selected number of trainers in specific geographic regions. This cadre of trained teachers then uses specific curricula and training strategies to train key teachers in school districts in their respective regions. These trained teachers, in turn, conduct local training for teachers and administrators from their school districts. This model is used to disseminate training from the national to the regional and, finally, the local level.

Many experienced trainers prefer to conduct inservice with a specific curriculum and support materials in mind. They have found that teachers are much more likely to implement a curriculum when they have had hands-on experience with the curriculum content and suggested teaching strategies and have the classroom materials needed to implement the curriculum. The results of the School Health Education Evaluation support this premise. "A commitment to teacher training and/or support materials may be a crucial factor fostering widespread teacher acceptance of health programs and, subsequently, ensure that an administrative commitment to health instruction will be carried into the classroom" (Connell, Turner and Mason, 1985). Others have found that when teachers were provided with a structured pre-implementation training program two indexes influenced the effects of training on curriculum implemention and student outcomes. They were fidelity of delivery (lack of curriculum modification) and proficiency (progression in adaptation of the curriculum to meet student needs) (Parcel et al., 1991).

How to Recruit School Districts and Teachers

When recruiting school districts and teachers to participate in inservice training programs, there are several key points to remember. First, it is vital to create a network of organizations, institutions and individuals to support comprehensive health education efforts. Persons representing institutions involved with preservice and inservice training promoting comprehensive health education must sell themselves and their philosophies to private institutions and organizations as well as state and local governing bodies.

Organizations to contact include:

- medical and dental societies and their respective auxiliaries
- school board associations
- administrator and teacher associations
- parent/teacher organizations
- state departments of education
- state departments of health
- voluntary health agencies

This task may appear to be too time consuming to individuals who are eager to get into the process of conducting inservice training. Such networking does take a great deal of time. However, ultimately the time spent is very worthwhile.

A second component in the recruitment process is to showcase the philosophy and need for comprehensive health education to local schools and communities to encourage them to participate in inservice training and implementation of such programs. A great deal of written and oral communication, followed by personal contacts, is needed to get programs established.

University faculty often send out letters announcing inservice training opportunities and expect to have their training sessions filled. More often than not, personal contacts or follow-up phone calls are needed. Frequently a trip to a local school district to make an awareness presentation before teachers, parents, administrators and school board members is needed. Even though the faculty of the Department of Health Education at the University of Central Arkansas has been actively conducting teacher inservice for more than twenty years and has worked hard to create a network supportive of comprehensive health education, frequent awareness trips to local areas continue to be necessary.

Annual presentations before state education and health agencies and voluntary health agencies are also needed to maintain trusting relationships. Recruitment involves time-consuming activities, and travel is often necessary to ensure successful inservice programs. However, once relationships are established, it becomes easier to convince teachers and administrators to use categorical monies available from federal and state governmental agencies, as well as private organizations and foundations, to promote comprehensive health education endeavors.

Incentives for Participation

Incentives that can be used in recruitment of teachers and school districts are important to the success of inservice training programs. Inducements such as college credit, a teacher stipend conditional on 100 percent participation at the training sessions, and district reimbursement for travel are frequently needed to attract the best teachers (Hawley, 1980).

Other incentives that may be offered are a partial or complete set of classroom materials needed to implement a curriculum, and faculty development inservice hours. Often, school districts demand that their teachers obtain a specified number of staff development hours each year. Institutions offering teacher inservice can coordinate with the state department of education or regional educational cooperatives to create inservice objectives to meet the criteria for staff development.

A specific curriculum document to take back to use in the classroom can also be an incentive for inservice. Teachers are very busy people and do not have time to create a great number of curricular materials. However, they are experts in adapting curricula and corresponding materials to their own unique needs.

What Role Can Credentialing Play?

Credentialing can play a vital role in creating opportunities for inservice training for secondary health education teachers. However, credentialing will have little or no impact on inservice education for elementary teachers. This discrepancy has been created because only secondary teachers hold degrees in health education. To become certified in health education, one must hold a degree in health education and pass a proficiency examination.

Once a secondary teacher becomes credentialed, a specific number of continuing education credits (accrued during a specified amount of time) are required to maintain certification. These credits can be earned through participation at professional meetings and/or inservice training. However, granting this credit for any and all inservice is not feasible.

To maintain quality control, the Division of Certification of the National Commission for Health Education Credentialing (NCHEC) requires an agency or organization to submit a proposal describing the educational activity(ies), as well as the person(s) responsible for facilitating the educational process, to a screening body. This body must approve the activities before credit toward maintenance of certification can be granted (National Commission for Health Education Credentialing, 1988).

Organizations and institutions are challenged to create avenues to use to offer such continuing education credits. These credits can be offered as incentives for participation in inservice training for secondary health education teachers who hold certification and are credentialed.

Successful Inservice Training

Inservice training is an important component in implementing successful comprehensive health education programs. Inservice training fosters positive attitudes toward the inclusion of health education in the school curriculum in addition to providing teachers with an opportunity to enhance their teaching abilities. Pre-implementation inservice positively influences teacher fidelity of delivery of health education curricula as well as student outcomes. Knowledge and attitude scores were significantly higher in classes taught by trained teachers than in classes taught by untrained teachers. Others have found that training, teacher commitment and resources were prerequisites for program success (Kolbe and Iverson, 1981).

Successful teacher inservice training involves the selection of an appropriate training model and recruitment strategies. Training is more likely to be successful if teachers have input in planning, feel the inservice will be worthwhile, know their school administration supports the training, and value the incentives offered. Inservice training is an important component that positively influences the degree of health education program implementation, program effectiveness and, ultimately, student outcomes.

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Chapter 29

Professional Preparation

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> Ideally, school health education should be a process of discovery that improves students' and teachers' health knowledge, attitudes, and skills and that embraces their lives. A key to attaining that ideal lies in professional preparation. (Hubbard and Smith, 1991)

Teaching occurs in all work settings in which health education is offered. In the more common situations of classrooms or clinics with groups of learners, or in one-on-one situations such as a patient educator in a hospital room, the interactions result in some type of influence on learning.

Traditionally, the fundamental concerns of teachers in schools have been discovering ways to motivate learners, establishing optimal conditions for learning, and selecting appropriate content and methods that best facilitate transmission of accurate health information. Consequently, future teachers were exposed to programs that offered a blend of health education subjects (e.g., drug education, nutrition, sexuality education), curricula (e.g., developing lesson plans, selecting textbooks) and teaching methods (e.g., lectures, group discussions). Subject matter most likely was learned in content courses in combined preparation programs such as health and physical education departments, while techniques and methods may have been acquired in a "School Health Programs" course or in at least one education class.

"Concern about the need for teacher preparation in the field of health education and establishment of standards of practice have been the focus of at least 13 national conferences and ten formal reports by professional organizations over the past fifty years" (American Cancer Society, 1992).Three conferences in particular contributed to a greater understanding of program ingredients that would graduate successful leaders in health education.

In 1948, at Jackson's Mill (Weston, West Virginia), participants in the National Conference on Undergraduate Professional Preparation in Health Education, Physical Education and Recreation identified generic competencies of health educators (Athletic Institute, 1948). The following year, the first U.S. Office of Education Conference on Undergraduate Professional Preparation of Students Majoring in Health Education was held in Washington, D.C. (U.S. Office of Education, 1950). This conference resulted in greater familiarity by health education professionals with the offerings in college and university programs and the needs of undergraduate students.

The third and most important of these conferences, the National Conference on Graduate Study in Health Education, Physical Education and Recreation, convened in 1950 at Pere Marquette State Park in Illinois (Athletic Institute, 1950). Guidelines for professional preparation of health educators that came from this conference underscored the essential role of preparation if health educators were to positively affect the health status of people with whom they worked. From the time of these milestones in health education history to the present, professional preparation programs have remained essential contributors to the growth and evolution of the field and the profession.

Today's Health Educators

Over the past three decades, the health education instructional program has evolved. In the mid-1950s, few people were training to assume primary responsibility for health education programs (Boydston and Denny, 1958). Today preparation is offered at more than three hundred colleges and universities (other than Schools of Public Health), with some institutions focusing primarily on teacher training for public schools (Association for the Advancement of Health Education, 1991). In 1988, a survey was conducted by Louis Harris and Associates in 199 public schools across the country. Of the respondents, 83 percent had received health education professional preparation at an accredited institution (Louis Harris and Associates, 1988). These programs provide essential knowledge and help instill appreciation for the variety of factors affecting health.

School health education is now viewed as one of eight components of a comprehensive school health program. Professional preparation that once guided future teachers on how a planned curriculum fits with school health services and a healthy environment now must be extended to include other school staff through counseling services, community involvement, physical education, nutrition/food services, and staff health promotion (Allensworth and Kolbe, 1987).

Contemporary health education teachers have been influenced dramatically by a multitude of changes and challenges. These challenges arise not only from the health and education fields but also from the economic, social and political evolution of our society. Fluctuating state budgets, conflicting local community standards and major elections increasingly affect the day-to-day realities of classroom teaching.

School health educators possess fairly unlimited potential for influence. They have access to nearly all of the next generation during its formative years. In addition to primary responsibility for instruction, however, teachers now are assuming a variety of other roles.

More than most other disciplines, to maintain or enhance health education programs, teachers may need to document the effectiveness of their programs, respond to media concerns, write proposals for grants to acquire resources, collaborate with numerous community agencies, or demonstrate the need for programs based on high-risk behaviors of their students. The proportion of time spent in these myriad roles may depend on such factors as time of the year, geographic location, administrative need and/or complex formulas, competing priorities, adequacy of staff and commitment to health education.

Schools are communities in themselves, with the same mosaic of people, traditions, competing interests and collaborations. School health educators must be prepared to function competently and to contribute to their community offerings while encountering the special demands of the school setting.

Preparation Programs: Barriers and Realities

Professional preparation programs in colleges and universities across the nation are experiencing parallel influences both within and outside their campus "walls." Faculty responsible for preparing each new cadre of school health educators are confronting assorted state-level, university-level, or school-district-level barriers and realities of the discipline that overflow into teacher training.

Who are we? It has become increasingly clear that although health education has been a field of study for nearly three decades, we still need to market who we are and what we do. Within colleges that house teacher preparation programs, faculty may find themselves differentiating their work from that of fields such as physical education, recreation or social work for colleagues and administrators. This confusion in identity can lead to problems. For example, in some cases time constraints among student course requirements may force health education courses to compete with education classes.

How do we function? Clear delineation of how health educators function in schools is also a factor in attracting students to our programs. Concern for finding a job dominates many college students' decisions. Health education may be perceived as a field commanding little respect and little pay, and as a major that many people don't recognize or understand. Compounding this situation are prospective employers who don't recognize that health educators have special skills to offer. Attracting people of color to the field can be especially difficult.

Where are the professional preparation programs? Further confusion arises from variations within professional preparation programs. Some departments are located in schools or colleges of education while others may be part of health, physical education, recreation and dance. Autonomous "health education" (or similar titles such as "health promotion" or "health sciences") departments are evolving in some locations but losing independent status in others that succumb to departmental mergers.

What influences preparation in comprehensive school health education? Differing definitions of what comprises comprehensive school health education and how to prepare prospective educators influence professional preparation. Where faculty received their preparation and the selection of textbooks or instructional materials representing specific philosophies affect what the next generation of teachers will learn. Individual preferences in class assignments, overall mission of a college or university, concern for course enrollment numbers (e.g., FTEs), and visibility of other curriculum areas also can affect the parameters of health education departments.

The landmark School Health Education Study warned us nearly three decades ago that very few of the people teaching health education had any depth to their preparation (Sliepcevich, 1964). With the expanding roles of health educators comes an increasing need for diverse courses to prepare them. However, course offerings and reductions or changes in staff make-up frequently are dollar-driven and delineate the options available in preparation.

Preparation programs must address numerous issues in increasingly crowded preparation course content. "A special opportunity and responsibility exists for the teachers of health professionals to design curricula and allocate educational resources [that] will equip health-related professions with prevention expertise and with the skills to share their knowledge with the public" (U.S. Department of Health and Human Services, 1992).

Supervised fieldwork potentially allows valuable "real world" classroom experience and exposure to a variety of student groups. Yet recommended or mandated amounts of observation, student teaching and actual teaching experience may be inadequate.

Who can teach health education? Inconsistencies also occur among states on requirements for teacher preparation. When considering who can teach health education, your answer might correctly be someone with a major, a minor or no specialization at all in health education. In one state, an individual holding any one of eleven different credentials might teach health education. Regrettably, some states are taking steps backward as state departments of education push for dual certifications in health education and physical education. Special interest groups, more overtly than ever, may attempt to influence curricula and school health program staffing at the local and state levels.

Where's the support? The school setting presents its own set of barriers. Local school districts typically are allowed considerable authority in establishing and overseeing programs within their state framework of requirements. Administrative support for the school health program may be minimal or absent. School districts facing fiscal reductions may reduce education programs and cut personnel. If health education is not recognized as a discipline, it may be broken into parts and distributed among other disciplines of the curriculum. For example, body systems may be covered in science class, family life issues in social studies, fitness in physical education, and nutrition in home economics. "Professionals from a broad range of disciplines are often expected to collaborate on matters of school health, but with little common understanding of one another's roles and responsibilities" (American Cancer Society, 1992). Teachers may be forced to teach in areas where they feel uncomfortable, have fears and extreme biases, and/or no preparation. Advocates offering well-intended support frequently omit professional preparation or training from lists of recommendations.

What are realistic goals? Health teachers or district level personnel also may be expected to "fix" adolescent pregnancy or STD rates, decrease alcohol and other substance use, respond to conflict and violence and eliminate suicides. John Sculley, chairman of Apple Computer, captured this reality when he said, "We expect our teachers to handle teenage pregnancy, substance abuse and the failings of the family. Then we expect them to educate our children." Graduates of university programs may have a teaching certificate and expectations that don't match the realities of their school districts.

Where's the connection between professional preparation and schools? "Professional preparation in health education is a critical precursor to the implementation of effective comprehensive school health education" (American Cancer Society, 1992). Developing linkages between preparation programs and local school districts needs greater attention. More periodic observations and actual experiences in schools (e.g., through partnerships extending beyond potentially limited student-teaching requirements) need to be offered to potential school health educators. Need for community collaboration also dictates increasing communication among school districts, university preparation programs and departments of public health.

Is preparation the priority at the university? Keeping in mind a range of possible combinations of staff, some professional preparation faculty may need to be upgraded in the realities of contemporary schools and school health education programs. Similar to their students, they may be unprepared, inadequately prepared or not current on content and skills.

In some settings, emphasis on research may diminish time spent mentoring students preparing for the schools. College faculty may share the misperception that, since they have much in common with health educators in other work settings, school health teachers do not have unique needs.

Beyond traditional considerations, professional programs must prepare students to deal with these barriers as they step into their unique school health programs. In addition, college and university faculty need to provide guidance and insights about other challenging areas to those who will be new professionals.

Other Issues and Concerns

Traditionally, a student teacher might expect to come under scrutiny of an experienced supervising teacher and a principal or perhaps some other administrator. When accepting employment, this new educator might assume that these same personnel will influence his or her health education experiences. Today, however, school health educators also need to know the key groups that have an impact on school health, such as departments of education, public health departments and assorted legislators with federal, state and local agendas that will influence the curricula and resources.

State lawmakers can pass laws that require a health education course or topic as easily as mandates that are too difficult or specific to implement. For example, a new regulation can require HIV prevention education but not include funding or technical support to ensure the program's success. Perhaps our challenge is to lobby for compulsory preparation for each new legislative mandate.

Health education scholars also suggest that far more attention needs to be given to affective education. "Professional preparation programs for health educators should insure that their graduates will be armed with skills [that] will promote and implement affective approaches to individual/group instruction...." (Vincent, 1991). Current interest in self-esteem and other "self" issues is an important but small part of that picture.

A variety of teaching strategies are needed to provide educational experiences beyond lectures and multiple-choice examinations. The focus must be expanded to include learning how to build personal and social skills related to communication, decision making, stress management and goal setting. (See Chapter 11, Personal and Social Skill Development Is Basic.) Especially at the secondary level, teachers need training in facilitating open discussions that accept and validate diversity in beliefs. This generation of teachers also may find their students want to talk about feelings about civil rights, race relations and appropriate roles for government in health-related areas of our lives.

Individuals enrolled in professional preparation programs will need modeling and opportunities for application and practice before they can, in turn, expect their own students to acquire these skills. Preparation should include personal assessment of what was learned and consideration of how future students would react to activities. "School health educators with affective traits and skills will be more effective in individual/group instruction and in their working relationships with others" (Vincent, 1991).

Teachers also need to learn how to deal with numerous inherent sensitive issues. (See Chapter 26, Dealing with Controversy in the School Health Program.) "Controversies arise when people representing two opposing viewpoints try to force a school district to conform to their own beliefs" (Ames et al., 1992). In public schools, issues commonly encountered center on differing values and beliefs and/or improper implementation of curriculum. In a school health methods course (particularly in sexuality education and drug education professional preparation), establishing a comfort level and learning how to deal with value-laden issues is essential.

Future teachers should be prepared to refer students to caregivers and family to encourage communication. But they also must be prepared to deal with many other issues:

- How do you answer questions?
- What are the "questions behind the questions"?
- What are the best ways to avoid "getting into trouble"?
- What questions can or cannot be answered in a public school classroom?

- How do you deal with parents who believe health education should occur only at home?

The potential role of peer helpers or advocates also needs to be examined. What roles do they play? Are they effective? How are they selected and trained? Where do they "fit" in school health programs? (See Chapter 25, Peer Education: Students Helping Students.)

Emphasis on cultural competency should not escape professional preparation of future school health educators. (See Chapter 23, Promoting Multicultural Sensitivity Among Educators). Personal recognition and acceptance that all types of cultural groups have profound influences on our lives is essential. Models for education inclusive of race, gender and class should be provided. Helping those preparing to enter our schools as teachers to learn respect for what they may not always understand may be among our greatest challenges. Future educators' ability to create educational experiences and select resources that are nonjudgmental and culturally sensitive should be developed and enhanced. Being familiar with and equipped to handle these issues can be powerful tools for successful functioning in school health programs.

Lastly, differences between preparation of elementary school (grades K-6) teachers and those in middle/junior high and high schools (grades 7-12) are worth noting. In elementary schools, health education typically is taught by a classroom teacher. Having a specialist responsible for the curriculum is rare, although a coordinator may be responsible for training teachers in health education. Having strong preservice preparation, therefore, becomes critical. (See Chapter 27, Preservice Education: Providing Health Knowledge for All Teachers.)

At upper levels, it is more likely that someone will be identified as a specialist and assigned to teach health education as a separate discipline. In small or rural districts, this person may be responsible for everything in a school health program. Although the number of classes and/or topics and the extent of exposure to affective or sensitive issues varies, these school health educators still require specialized training. If appropriate professional preparation does not occur, it may be acquired through inservice training. (See Chapter 28, Why Is Inservice Training Essential?)

Eventually, college faculty should be able to suggest what combination of content, process/subject matter and skills most likely will lead to successful comprehensive school health programs. Professional preparation programs must send their graduates to our schools not only well-versed in scope and sequence or preparing a grade book but also grounded in the key elements of prevention programs, including personal and social skills (Fetro, 1992).

In the current political and economic climates, being able to teach a group of students is not enough. Health education is not necessarily supported by general school funds. Grant and entitlement monies may be required. Someone in the district needs skills to secure Drug-Free Schools funds, incorporate peer helper programs, write reports, advocate with parents, write applications, monitor activities and evaluate student outcomes. Involvement of individual school health educators with any of these roles will depend on district size and availability of other staff. School health educators, however, must be prepared to have generic competencies as their jobs are no longer confined to the classroom.

Preparing for Roles and Responsibilities

Faced with all of these potentially overwhelming barriers and challenges, faculty and future students of school health education professional preparation programs understandably might ask

"Where do we begin?" or "Where is our set of directions to build this 'product'?"

This obvious need to find order and make transitions may provide important opportunities for professional preparation programs. Recent adoption of consistent standards collaboratively established with the Association for the Advancement of Health Education for National Commission for Accreditation of Teacher Education (NCATE) program reviews is an important step in remedying these inconsistencies (Association for the Advancement of Health Education, 1988). Ideally, individual preparation and program directions will continue to become more parallel and consistent.

State teaching credentials remain the primary job requirement of school health educators. Yet the roles, responsibilities, barriers and challenges described here actually parallel those delineated for national certification as a Certified Health Education Specialist by the National Commission on Health Education Credentialing. The National Task Force on the Practice and Preparation of Health Educators (1985) suggests that school health educators could have responsibility for:

- assessing individual and community needs for health education
- planning effective health education programs
- implementing health education programs
- evaluating effectiveness of health education programs
- coordinating provision of health education services
- acting as a resource person in health education
- communicating health and health education needs, concerns and resources

"Higher education institutions should use the responsibilities and competencies developed and outlined by the National Commission on Health Education Credentialing, Inc." (American

Cancer Society, 1992). Specific examples of how these responsibilities can be explored in health education professional preparation offerings are included in Figure 1.

Needs Assessment

Traditionally, if needs assessments were conducted in schools, they formed the foundation of the curriculum scope and sequence. School health educators, however, may have students across the ranges of growth and development and a continuum of risk behaviors. Teachers and administrators often assume that we already know how many students do what or how they feel. To meet their needs and provide programs that address these needs, school health educators must know *their* students.

Professional preparation must include learning how to collect baseline data on knowledge, attitudes, feelings and behaviors. Some guidance about interests and concerns may be derived from student messages compiled in classic works such as the Denver Interest Study (Denver Board of Education, 1954); *Teach Us What We Want to Know* (Byler, 1969), known as the Connecticut Study; and *Students Speak* (Trucano, 1984), often referred to as the Seattle Study.

Preparation should emphasize, however, that "interests" and "needs" are not always the same. A specific classroom of students may be different and require different emphases among curriculum areas. To meet needs, educational experiences must be developmentally appropriate and culturally sensitive. Additionally, most applications for external funding require establishing or describing a need. Some funding is written specifically to target high-risk groups.

University faculty can begin by assessing the needs of future teachers in their own preparation classes. What is their previous experience, if any? How knowledgeable are they about curricula,

Figure 1

Examples of Professional Preparation for School Health Educators

Area of Responsibility	Coursework	Field Experience
1. Assessing individual and community needs for health education.	Curriculum Evaluation Vital statistics Needs assessment Content courses	Examine existing survey data. Review data (e.g., NASHS, YRBS; morbidity and mortality). Use quantitative and qualitative techniques to gather data (e.g., surveys; focus groups; individual interviews). Conduct computerized literature searches.
2. Planning effective health education programs.	Community health Curriculum development Evaluation Methods and issues Program planning	Develop scope and sequence. Attend school planning committee meeting. Plan a sequence of learning opportunities and write behavioral objectives for health education program. Review grant proposals to identify program components.
3. Implementing health education programs.	International health Multicultural issues Growth and development Health teaching and learning School health programs	Practice using media in lab. Observe master teachers. Attend professional conferences. Attend peer education skit. Visit voluntary agencies. Present health education using a wide range of methods.

Figure 1 (continued)

Area of Responsibility	Coursework	Field Experience
3. Implementing health education programs (continued).	Community agencies and programs Organization and administration of school health programs Research design Methods and issues	
4. Evaluating effectiveness of health education programs.	Evaluation Research design Curriculum development	Conduct library search to analyze existing evaluation studies. Conduct pilot test of new education program. Review survey instruments from inservice. Use quantitative and qualitative data collection methods. Analyze existing data (e.g., NASHS, YRBS, MMWR). Establish criteria for determining program effectiveness using local needs assessment data and national guidelines (e.g., *Healthy People 2000*). Develop evaluation plan for health education program.

Figure 1 (continued)

Area of Responsibility	**Coursework**	**Field Experience**
5. Coordinating provision of health education services.	Community organization Curriculum Administration of health programs	Participate in project with school and county agencies. Interview staff about program offerings. Review grant proposal for collaborative efforts. Conduct case study. Identify duplication and gaps in existing programs and services. Develop a plan for community collaboration.
6. Acting as a resource person in health education.	Foundations Methods and issues Public speaking Mass media Contemporary concepts Community agencies and programs	Conduct search of clearinghouses. Review texts, videos, curriculum materials. Attend professional meetings. Compile list of available resources in selected health areas.
7. Communicating health and health education needs, concerns and resources.	Health administration School health programs Public Speaking Mass media Foundations	Schedule meeting with PTA president or Chamber of Commerce. Visit teacher's room. Write letter to editor. Debate opposing viewpoints about health education issues. Write a position paper on health issue.

Figure 1 (continued)

Area of Responsibility	Coursework	Field Experience
7. Communicating health and health education needs, concerns and resources. (continued)		Develop a public service announcement (PSA) about a contemporary health issue Write a letter to representative or senator about contemporary health issue

risk-taking behavior of children and youth, or their own comfort and skills to teach sensitive subjects? Future school health educators need to be taught who, where, what, when and how to assess needs. Learning both content and process is critical. Checking district policies regarding collecting data about students and parents is an essential first step. Prepared health educators then will need to collect data—both quantitative (e.g., a survey of eighth graders) and qualitative (e.g., focus groups asking fifth graders about their health interests).

Course work such as "Organization/Administration of School Health Programs" or "Evaluation Techniques" classes should help health educators learn how to

- access school health, tardiness, absentee or suspension records or computer-assisted health-risk appraisals
- interpret data from health agencies
- design or be able to identify valid and reliable surveys or inventories
- perform unstructured assessments by asking students to list things that they worry about

- conduct surveys or focus groups with students about their concerns

Teachers also need preparation in direct observation (such as substance use) or interviews with parents, other teachers and adults with whom students relate closely.

Sometimes without even knowing it, information about student needs can be found in class worksheets that students complete. For example, for a sentence completion activity that included "I would rather ______________ than ______________," one student filled in the blanks with "die" and "live with my family."

Awareness of available support services in the instructional area and how to acquire background on special-needs students should be included in preparation. Future educators then need to be taught how to examine and analyze these findings and apply them to program planning.

Program Planning

When attempting to use results of needs assessments and begin the program planning process, school health educators probably will find that the first step in planning (i.e., the decision to offer such instruction and who should participate) already has been made by an administrator. Or an advisory board comprised of parents, representatives from community agencies and school district personnel may be responsible for curriculum additions and revisions.

Teachers do, however, need to be current on what works. They can be prepared to set patterns for good teaching by using a variety of approaches to planning instruction. Preparation should show them how to select curricula and textbooks that meet established needs. School health educators must be prepared to identify what is included and what is missing.

As planners, teachers may be asked to serve on school health committees. Awareness of key issues that are of current concern or interest can be ensured through relevant course work in both content-based (e.g., human sexuality, mental health) and methods/issues-based (e.g., school health programs, contemporary health issues) course work. Beyond this subject matter, a solid background in health education foundation areas (e.g., history, philosophy, models and theories, ethics) may be as essential as knowing how to prepare a lesson plan.

A health education curriculum course can provide practice in traditional classroom planning as well as more contemporary program planning. Students can select grades and develop an appropriate scope and sequence. Lesson plans, homework, behavioral objectives, classroom procedures, extension activities, time allocations, media and resources should be included. These activities can be extended to planning programs that are partnerships with community agencies.

A community health course or seminar in health sciences might suggest community problems and conditions that overlap with those addressed in schools. Preparation for planning needs to address these questions:

- How does a school community fit into the larger community picture?
- How do we link schools with available community services?
- How do we meet student needs beyond instruction?
- How do we identify and work with key community leaders?

Studying how students develop (e.g., making decisions) can be combined with a model for dealing with local community issues (e.g., underage drinking) coupled with needs assessment data (e.g., ninth graders want alternatives for after-school activities) in planning appropriate units.

Program Implementation

Once preparation in needs assessment and program planning has occurred, training in implementing programs can begin. Implementing program strategies requires committed leadership and support of both policy makers and school administrators (Rich, 1988). A local school board may endorse the concept of a health education course and even allocate funds to support planning it. But this plan may be taken to the teachers to be translated into live classroom experiences. The teacher might have to arrange facilities, order books and pamphlets and eventually carry out the program directly in the teaching role (Greene and Simons-Morton, 1990).

Preparation classes such as "International Health," "Ethnic Groups" and "Growth and Development" can demonstrate ways to assess developmental and cultural appropriateness and usefulness in particular grades. In a "Health Teaching and Learning" class, knowledge and skills can be presented through a variety of methods, techniques and resources (e.g., group discussions, crossword puzzles to review terms, a new video series).

To be a good implementor, strong communication skills are essential. Class activities in methods or "School Health Programs" courses can allow prospective teachers to become more aware of verbal, nonverbal and body language, as well as how to present a clear philosophy and rationale for starting a program and monitor barriers that might prevent full implementation (e.g., an uninformed administrator). Providing these lessons may also be an opportunity to reinforce how to deal with sensitive issues while implementing a program.

School health educators should receive preparation in how to use a variety of instructional strategies to successfully implement their programs. Important information can be presented, for example, in games and puzzles, lectures, media, health fairs, bulletin board displays and field trips.

Creative expression can be encouraged through skits, roleplays and creative writing. Brainstorming, panel discussion or forced-choice techniques allow sharing of feelings, thoughts and values. Critical thinking can be developed by use of case studies, debates, journals and analysis of media advertisements or song lyrics.

Review of the eight-component model for comprehensive school health programs (Allensworth and Kolbe, 1987) with focus on specific ways to network with other school staff (counselors, nurses, physical educators, food service personnel and others) will enhance preparation for implementing school health programs. Together, these various professionals can collaboratively work through schools to enhance the health of the school-age population.

Recognizing the importance of parent and community involvement in implementing programs also should be emphasized by faculty in preparation programs. In today's schools, you may have an ideal program but find that you can't offer it all. Professional preparation programs should demonstrate ways of linking with community agencies and health departments to provide complementary learning experiences (e.g., guest speakers).

In classes such as "Community Agencies and Programs" or "Organization and Administration of School Health Programs," teachers can practice working with outside nonprofit and voluntary agencies (e.g., American Cancer Society, American Heart Association) to provide services and acquire resources. For example, the county health department may have a grant to promote safety belt use in children. McGruff (the "Crime Watch" dog) might come to several classrooms to teach about a state's new law and demonstrate how to ride safely in a car.

Teachers should learn that these team efforts can be beneficial in coalition building both within the school building and/or in the district. Implementation may go more smoothly, obstacles may be overcome more readily, and more successful programs may result from combined efforts. Potential burnout may be minimized when a team is striving to implement the health program.

One preparation option, class projects presented in the classroom, can be included in both content and methods classes. These assignments can provide ways to learn what works and what might be done differently. The importance of learning to delegate manageable parts and being responsible to others with whom you work can be emphasized.

Another implementation experience that teachers may encounter is working with researchers in the schools. They may be involved in implementation as part of their research design before and/or after a program. Faculty need to provide preparation in working with researchers to acquire valid, reliable and useful data about students, staff and school issues. Educators also will need to understand how to direct researchers to conduct research in schools in appropriate ways. For example, random assignment within classes or withholding treatment from half of the classes (e.g., pregnancy prevention or drug education) to test a program is unacceptable.

Evaluation

After programs are in place, school health educators will want to know how to determine whether student needs are being met, whether programs are being implemented as planned, and whether programs are having an impact. Participation in research and evaluation intended to find answers to those questions requires mastery of a variety of competencies (Drolet, 1991).

All teachers really are evaluators. At the classroom level, teachers are prepared to use quizzes and examinations (e.g., a test about chapter three from the text and the class discussions last week about nutrition) and observations of how students work together.

Emphasis should be placed not just on behavior change but rather on evaluating personal and social skill development (e.g., roleplay situations in which decisions must be made). It is critical that teachers learn not to evaluate the feelings themselves but rather their students' ability to express them. Other measures might include preparation in how to pilot a lesson with a small summer group before adding it to the regular school curriculum or how to acquire volunteers to meet as a focus group after school to respond to questions about the new anti-violence project in the school.

In addition to assessing their learners, teachers also evaluate their schools. University faculty must prepare prospective teachers to determine if their newly developed or ongoing programs are doing what they are designed to accomplish. For example, an "Evaluation Techniques" course could prepare teachers to determine how well a program is received by determining and examining responses of students, other teachers, administrators and parents. A program that's great conceptually may not fit the schedule or may disrupt the school day. Preparation should include how to make changes, if necessary, once these responses are acquired.

Other circumstances may require preparation. A superintendent may ask for evidence that the existing curriculum is in compliance with state mandates. Members of the PTA who watched a public television broadcast might ask for interpretation of national evaluation findings from the *National Adolescent Student Health Survey* or the Centers for Disease Control and Prevention's *Youth Risk Behavior Survey.*

If a school is trying to maintain funding for health programs, teachers might be asked to monitor "How many students received ___?" or "What were you able to do with ___?" as well as explain why or why not. Overall, teachers should be ready to link their program objectives with their evaluations to both improve current programs and determine future program directions.

Coordination

As indicated earlier, contemporary school health educators can enhance support and increase the likelihood of successful programs through collaborative efforts. A traditional example has been team teaching. Cooperation, use of teacher specialties, and flexibility are part of these coordinated efforts.

In ideal situations, coordination responsibilities would be accomplished by individuals with several years of experience. But entry-level professionals now may coordinate provision of health education services for an entire district or contribute as individual teachers. As school health coordinators, they might be asked to maintain central materials at a resource center, supervise distribution of updates on community health-related activities, work with student associations, or administer policies from the board of education. They should be qualified to assume leadership roles. Clear communication and organizational skills are essential.

Preparation faculty should emphasize that a supportive climate for the school health program can be established through coalition building. Higher proportions of teachers who intend to remain in their profession have positive experiences with students, parents, other teachers, principals and other administrators (Louis Harris and Associates, 1992). Partnerships with school staff as well as staff from social service agencies, clinics, youth service organizations and others can help determine available appropriate resources and facilities for students and school staff.

A "Community Organization" class project might involve determining how a middle school class, the local "Green Earth" group and chapter of Sierra Club, and the county health department could coordinate an environmental awareness program. Throughout a semester, a "Curriculum" class might be guided into serving in advocacy roles by periodically roleplaying an advisory group. Or the course could prepare prospective teachers to work with an advisory group to develop a needed curriculum or guidelines for dealing with specific situations (e.g., having a designated smoking area at a high school or dealing with HIV-positive students at a middle school).

Another example might be a case study where a controversy arises over presence of guest speakers in a health class. Future professionals can learn the importance of having the classroom teacher, the speakers' agency and the district's advisory committee share consistent understanding and support of goals, teaching strategies and materials. Practice in classrooms can provide models for defusing situations that could put school health programs in jeopardy.

Collaborative involvement also diminishes overemphasis or duplication of services in one area and neglect or minimal focus on others. Many grant dollars are distributed for HIV/AIDS prevention and alcohol and other substance use programs. Other important content areas may receive less attention. Preparation in coordinating efforts can result in more comprehensive educational experiences when other school and community personnel are identified and brought in to address areas that a teacher might not be able to include.

Teachers also should be prepared to determine where overlap exists. Instructors in related areas can be offering similar instruction. For example, the biology teacher may be discussing transmission of viruses and communicable diseases. Rather than duplicate that content, the health teacher could explore attitudes that students have about people with HIV. The counselor could meet with student groups to discuss HIV-related fears. When health education services are coordinated, cooperation increases and conflict and competition for valuable time and resources decrease.

Acting as a Resource Person

Serving as a resource person may occur on a daily basis and take a myriad of forms. Preparation for this role again involves those essential communication skills. Faculty in preparation programs must enhance their own abilities and then prepare those in their classes with strong and varied communication skills.

A school health educator might be asked to serve as a resource in all or many of the following potential situations:

- participant in a parent/staff child abuse awareness program
- guest speaker on stress management for other teachers, a church group, the community health fair or many other presentation forums
- reviewer of district health-related policies and procedures for consistency with local and state mandates
- key decision-maker in revisions to make a curriculum culturally and developmentally appropriate
- respondent to the media in interviews, etc.
- interpreter of the latest federal government technical report related to the year 2000 health objectives for the nation

Future educators need preparation in acquiring the most current, relevant information for themselves and others. Prospective teachers should be prepared in how to select textbooks, audiovisuals and materials for libraries. Health education "Foundations" or "Contemporary Concepts" courses might offer training in identifying current issues and accessing computer databases, government documents and professional literature, as well as incorporating popular media in lessons. A "Community Agencies and Programs" class might emphasize the need to include community as well as national sources via mailing lists, clearinghouses and agencies.

Emphasis should be placed on the frequently overlooked area of professional associations. Active participation in such organizations offers reciprocal benefits. New professionals are resources to their state, regional and national health education associations. In return, these school health educators can acquire data, teaching strategies and resources, and professional contacts to improve their own abilities. Preparation program faculty should assist future teachers in learning about the benefits of and barriers to membership and the cycles of local, regional, state and national conferences and publications.

Communication

Although effective communication skills are inherent in other areas of responsibility, professional preparation must extend to conveying health and health education needs, concerns and resources to others. Setting and target group will affect the methods employed to accomplish this role. Whether writing a memo or making a presentation, school health educators need preparation for communicating in the classroom and with parents, school administrators and staff, community agencies and others. Nor can listening skills be taken for granted. "A teacher must be a facilitator of learning, not simply a communicator of information" (Pollock, 1987).

In all cases, however, school health educators will be called on to use a variety of means with diverse audiences. The myriad methods emphasized in the discussion of the school health educator as implementor also apply to communication.

A major need is preparation in marketing comprehensive school health programs. Many parents, colleagues and community decision makers do not know who we are or what we have to offer. Perhaps we talk to ourselves while we actually need to talk to others. Preparation faculty should encourage and support exploration of a wide range of creative, professional ways to convey our messages about health-related issues, needs and resources.

In a "Community Health Administration" course, students could explore the role of lobbying and passage of state and federal health-related bills by writing their own plan for national health care. Class members might represent all groups who have an impact on decisions. Another activity might involve identifying various inservice models for school health staff. A plan could be developed for communicating an appropriate selection to state, regional or district personnel responsible for inservice activities. Through roleplays or groups, future teachers can practice showing other school staff how health education can add new dimensions to their activities.

School administrators may turn to school health educators to interpret research findings after the local university assesses alcohol use and driving behaviors at the local high school, or evaluation results following a staff training on decision-making skills, or to explain to union representatives the need for mandatory stress management programs.

Teachers must be prepared to respond with a variety of formats (e.g., summary reports, tables and figures, panel discussions), using both content and process. Preparation resulting in a clear understanding of accurate facts, effective skills and current issues in the field will help school health educators as they communicate with others.

The school setting offers many opportunities to capture natural interest in health-related areas. School health educators should be prepared to respond to questions from other district personnel or parents. A "School Health Programs" class assignment might include interviewing teachers or attending a school board meeting.

Teachers also should learn how to *initiate* discussions among community groups and organizations where they can communicate about health education needs, concerns and resources. They might become consultants to the PTA/PTO, volunteer for a local service organization speakers' bureau (e.g., Kiwanis, Rotary, Chamber of Commerce) or write letters to the newspaper editor. In each case, health needs, concerns and resources of the district could be addressed.

> A crucial foundation to these delineated roles is clarification of personal philosophy and individual code of ethics. Well-planned education and training for development of these crucial knowledge and skills by qualified professionals is essential for maintenance of standards in practice. (Drolet, 1991)

Personal Competencies

One goal of the previously cited Jackson's Mill conference was to develop a list of personal qualifications for successful leadership in health education.

> Good leaders believe in others and their ability to perform. They also provide an arena for those they lead to test their abilities. Truly great leaders empower people under their direction to be all they can be. Leaders learn from those they lead and are often followers, too. Superior leaders always see their followers as leaders in training. I see teachers as leaders of the greatest measure. (Munson, 1991)

Consideration of personal competencies should be as important a priority as focus on professional competencies. In school settings, teachers are in positions of authority with captive audiences. "As teachers, we can let our students know that even if no one else in the whole world appears to believe in them, we do" (Munson, 1991).

Characteristics such as concern for people, especially children and youth, and interest in health attract certain individuals to careers in school health education. "One of the most important responsibilities of college/university faculty is to help [future teachers] identify and accept standards by which they want to live" (Rash and Pigg, 1979).

Fodor and Dalis (1989) suggest that whether health education teachers agree or not, their personal attributes may have greater effects on their students than what they actually tell them. Examples of these personal traits include:

- a zest for living
- valuing of health
- understanding of individual differences
- ability to relate well to children and youth
- desire to keep current on health concepts and content
- flexibility in adjusting to changing conditions and situations
- willingness to assess students' needs and achievements

Greene and Simons-Morton (1990) state that "enthusiasm for the content and process of health education may be the most important personal quality required of a health educator."

Another consideration for professional preparation programs is the creation of an applicant pool for faculty positions that includes diverse gender, ethnic/racial and class representation. Future teachers, and ultimately their students, need exposure to successful role models who are committed to school health education.

Inherent in reviewing all of these roles, responsibilities and traits is the need to *continue* competency. School health educators can find themselves needing added skills or desiring professional advancement. The dynamic kaleidoscope that is health education and its programs demands moving beyond formal professional preparation and past experiences. Today's health educators "must be life-long learners, excellent communicators, good team players, managers of scarce resources, health care visionaries, and community leaders. The day of the solo practitioner dealing...in isolation from other professionals is past" (U.S. Department of Health and Human Services, 1992).

School health educators need to monitor developments such as application of new theories or personal skills, new directions in health-related research or technology, or entirely unexpected additions to our information base. In addition to informal resources, keeping informed about current health findings or improving teaching competencies can occur through ongoing inservice offerings. Although attendance frequently is mandated for incremental advancement, instilling a value for continued professional growth is a key extension and the ultimate responsibility of professional preparation programs.

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Chapter 30

Credentialing: Assuring Quality in School Health Education

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Many factors contribute to quality school health education, but those who have direct responsibility for school health instruction, the school health educators, play a key role. The preparation and practice of these educators may be enhanced in three ways:

- accreditation of professional preparation programs for school health educators
- credentialing of health education teachers
- continuing professional development for school health educators

Credentialing is designed to improve the quality of professional practice by ensuring a selection of well-trained professionals and academic programs that have met established standards. It helps to define the scope of professional practice by delineating the knowledge, skills and attitudes of the profession. "[A] good credentialing program enhances the image of the profession by giving visibility to those who possess the knowledge and skills necessary to offer competent services" (Summerfield, 1991).

Individual credentialing helps employers identify potential employees who have met professional standards. For the consumer, a credential provides a means of identifying professionals who have attained a requisite level of knowledge and skill in a particular field of practice. Additionally, credentialing helps to orient a worker to the profession. Preparation for a credentialing examination encourages further study to expand knowledge, as well as the development of new professional skills to enhance practice.

Accreditation has many purposes, including:

- serving the public by identifying institutions that have met standards and criteria
- encouraging institutions to improve their programs
- facilitating the transfer of students from one institution to another, at the same level and at higher levels
- raising the standards of education for the practice of a profession
- informing prospective employers about the quality of training received by graduates of an institution of higher education

Types of Credentialing

Credentialing is a broad term. It includes regulation of both individuals and academic programs in colleges and universities. Individual credentialing includes licensure, certification and registration; program credentialing includes accreditation and approval. Key factors in credentialing are who establishes and monitors the standards. Credentialing may be the responsibility of a state agency, a professional association or a nongovernment agency. It may be based on legislative authority and may be backed by the police power of the State.

Individual Credentialing

"Licensing is the generic term referring to all forms of state control over the right to perform specific activities" (Gross, 1984). In some professions, individuals are required to be licensed to practice. They must meet specific qualifications and pass an examination to demonstrate their competence to practice. Only those with a license may use the occupational title of that particular profession. For example, in medicine, only those who are licensed may practice and call themselves physicians.

State certification is a type of voluntary or partial licensing. Teachers are one occupational group certified by the state. Individuals must meet established qualifications and may be required to pass an entry examination. However, others may call themselves teachers and perform as teachers, even without state certification.

Some state certifications are broad, enabling a teacher to teach a variety of related subjects in a range of grade levels (Darling-Hammond and Berry, 1988). For example, a teacher certified in secondary science might not be considered teaching "out-of-field" when assigned to health education, even though the teacher's primary field of preparation was middle school biology. Many states do offer specialized credentials, which require a specific amount of teacher preparation for the subject to be taught.

Registration, another type of state regulation of an occupation, is the least restrictive form of state control. It involves maintaining a list of individuals who perform certain tasks, without requiring these individuals to have certain qualifications or to pass an examination to be included on the list. In all types of licensing, however, a governmental agency has established requirements and monitors those who are licensed.

In other forms of credentialing, the state is not involved. "Certification, as distinct from licensure, is under the direct control of professions and is national in scope, so with regard to their certification the professions do not have to deal with fifty-one separate jurisdictions" (Gross, 1984). As defined by the U.S. Department of Health, Education and Welfare in 1971, certification is

> ...the process by which a nongovernmental agency or association grants recognition to an individual who has met certain predetermined qualifications specified by that agency or association. Such qualifications may include: (a) graduation from an accredited or approved program; (b) acceptable performance on a qualifying examination or series of examinations; and/or (c) completion of a given amount of work experience.

Similarly, registration is a process whereby a professional association, at the state or national level, maintains a list of practitioners.

Program Credentialing

Different types of program credentialing help promote and ensure quality in professional preparation. Academic programs in colleges and universities may have accreditation or a form of approval. "Accreditation ordinarily refers to the activities of both public and private agencies and associations, which determine whether a training or educational program meets predetermined standards" (Gross, 1984). The term *accreditation* applies only to institutions or programs within institutions (Mayor and Swartz, 1965). Three levels of accreditation are available to monitor teacher education: national, regional and state (ERIC, 1986).

The National Council for Accreditation of Teacher Education (NCATE) is the only national agency in the United States recognized by the U.S. Department of Education and the Council on Postsecondary Accreditation (COPA) to accredit teacher education. NCATE offers a voluntary accreditation process. To be considered for national accreditation, an institution must have regional accreditation and, if available, a state-approved teacher education program. NCATE may accredit any unit (college, school or department) of a higher education institution that prepares teachers. A 1985 survey indicated, however, that graduation from a program accredited by NCATE is not required for state certification in most states (Raths, Zych and Wojtaszek-Healy, 1985).

General institutional evaluation and accreditation is also conducted by six regional accrediting associations:

- Middle States Association of Colleges and Secondary Schools
- New England Association of Colleges and Secondary Schools
- North Central Association of Colleges and Secondary Schools
- Northwest Association of Secondary and Higher Schools
- Southern Association of Colleges and Schools
- Western Association of Schools and Colleges

These regional agencies provide another voluntary accreditation process.

Most states have a process for accrediting or approving teacher education programs in higher education institutions in the state. To get a certificate to teach in a state may require graduation from a state-approved program. In this instance, individual and program credentialing are linked. The state approves the courses required of prospective teachers during their academic preparation. However, some states offer an alternative to graduation from an approved program for certification eligibility.

Academic programs in colleges and universities may be accredited at the programmatic and/or institutional level. For example, a college or university may have institutional accreditation by a regional accrediting agency recognized by the U.S. Department of Education and/or COPA. Institutional accreditation means that the institution as a whole is operating in a satisfactory manner. Institutional accreditation is not equivalent to specialized accreditation of specific programs within the institution. "Institutional accreditation does not validate a specialized program in the same manner and to the same extent as specialized accreditation" (U.S. Department of Health, Education and Welfare, 1971). In other words, institutional accreditation of a college or university does not mean that each specific curriculum and/or department is accredited.

Academic programs in specific fields of study may have specialized accreditation. While accreditation may promote high standards in professional preparation, it does not mean that graduates of these programs will qualify for licensure, certification or registration. Accreditation does mean that the institution engages in periodic self-evaluation and has met the standards established by the accrediting agency.

Health Education Credentialing

In 1978, the National Task Force on the Preparation and Practice of Health Educators was formed to spearhead an effort to establish a credentialing system for the health education profession. During the following ten years, a number of activities were undertaken, including:

- a federally funded role delineation project
- conferences and workshops
- development of a competency-based curriculum framework for the preparation of entry-level health educators

(For a more detailed discussion of this history, see National Commission for Health Education Credentialing, 1990b).

These activities produced the following results:

- identified a generic role, including areas of responsibility and related competencies, of health educators, regardless of work setting
- produced a framework for the development of competency-based curricula for the preparation of entry-level health educators
- trained faculty in colleges and universities throughout the United States in the use of the framework
- determined that individual credentialing in the form of certification had the potential to improve the quality of health education in all practice settings, including schools

This work, completed over a decade, provided the foundation for a credentialing system. It was determined that there were more commonalities than differences in the roles of school health educators and community health educators.

The National Commission for Health Education Credentialing

In 1988, the National Task Force on the Preparation and Practice of Health Educators became the National Commission for Health Education Credentialing. NCHEC has three purposes: (1) to certify health education specialists; (2) to promote professional development; and (3) to strengthen professional preparation (NCHEC, 1992). It is an independent, not-for-profit agency.

NCHEC has a board of commissioners and three division boards with representation from each of the health education work settings (school, community, business/industry, medical care, college/university). All commissioners and division board directors are Certified Health Education Specialists who have been elected and serve as volunteers. In addition, staff support the work of the commissioners and division board directors.

National Certification of Health Education Specialists

In 1988, NCHEC began a national, voluntary certification program for health education specialists. It recognized that many professionals work in health education and may call themselves health educators. However, it also recognized that many individuals have professional preparation in health education and special health education expertise. The term *health education specialist* was selected to identify this latter group. An individual who met NCHEC eligibility criteria could become a Certified Health Education Specialist (CHES).

As is customary when a certification program is initiated, a charter certification, or "grandfathering" period, allowed individuals to apply for certification based on academic and/or professional experience in health education. Eligibility criteria for charter certification were established by NCHEC. Applications were submitted documenting academic preparation and work experience in health education supported by professional references. No certification examination was required at this time. The charter certification period extended from October 1988 through April 1989.

Beginning in 1990, an individual had to meet eligibility requirements and pass a certification examination to be certified. NCHEC designated a two-year period (1990-1991) to provide an additional opportunity for individuals to become certified, particularly those without academic preparation who were working in health education. During this period, "any individual possessing at least a bachelor's degree in any major *and* having current or past work experience in health education (any amount)" was eligible to take the certification examination (NCHEC, 1990a). Following this two-year "window period," eligibility requirements for certification changed.

As of 1992, to be eligible for the certification examination, individuals must "possess a degree (bachelor's, master's or doctorate) from an accredited institution of higher education *and* have a health education emphasis verified by transcript, preferably within one degree" (NCHEC, 1992). A degree with a health education emphasis is defined as:

> A concentration of course work preparing individuals for health education practice as delineated in the "Responsibilities and Competencies for Entry-Level Health Educators." The transcript will most often indicate a major in either community health education, health education, public health education or school health education. The courses are generally offered by a faculty of health education in a separate unit (department/program/track) within a college or university which has institutional accreditation by a regional accrediting agency recognized by the U.S. Department of Education and/or the Council on Postsecondary Accreditation (COPA). Courses must cover all seven areas of responsibility and the competencies delineated for entry-level health educators. A minimum of 25 semester hour credits (or 37 quarter hour credits) is required for the health education emphasis. Examples of types of courses *not* acceptable to constitute the health education emphasis are required liberal arts, basic sciences, general professional education, physical education, clinical nursing, dental hygiene or social work." (NCHEC, 1992)

This definition began the process of determining what constitutes professional preparation in health education.

The Professional Examination Service (PES), located in New York City, administers the certification examination throughout the United States and abroad for NCHEC. PES is an independent national professional testing agency with more than fifty years experience in the development of credentialing examinations, specializing in the health care field. As of January 1992, more than 3,500 individuals, from almost every state in the United States, plus the District of Columbia and Puerto Rico and several other countries, had qualified as Certified Health Education Specialists.

To maintain certification, each CHES must be recertified every five years by completing 75 contact hours of continuing education in health education. NCHEC has developed a recertification process for CHES as well as a designation process for providers of continuing education in health education (NCHEC 1991).

Accreditation of Teacher Education Programs in Health Education

The first step in becoming a school health educator may be completion of a professional preparation program in an institution of higher education. How are these programs monitored? What are some current issues in program credentialing?

Types of Program Credentialing

Teacher education programs in school health education may be accredited by NCATE and/or a regional accrediting agency. However, national and regional accreditation are voluntary processes. Another voluntary process for undergraduate health education programs is jointly sponsored by the Society for Public Health Education (SOPHE) and the Association for the Advancement of Health Education (AAHE). The SOPHE/AAHE Baccalaureate Program Approval Committee may approve academic programs that prepare health educators in a variety of settings, including schools.

An additional accrediting agency for college/university health education programs is the Council on Education for Public Health (CEPH). CEPH accredits Master of Public Health degree programs in schools of public health and other higher education institutions. This, too, is a voluntary accreditation process. Consequently, not all teacher education programs are accredited or approved at the national or regional level.

At the state level, teacher education programs may be monitored by a state agency. Again, there is great variation throughout the United States in the degree to which states regulate teacher education programs in school health education.

Issues

Cost of accreditation. The proliferation of accrediting agencies places a burden on institutions in terms of the time, cost and effort required for each accrediting process. For a teacher education program in school health education, the institution could participate in national, regional and state level review processes. With the current fiscal crisis in many higher education institutions, administrators are seriously weighing the merits of pursuing accreditation of some programs.

Voluntary versus mandatory accreditation. If accreditation is a means of monitoring teacher education programs, why is it not mandatory? A voluntary system is less exclusionary and does not penalize institutions who cannot afford the process. However, voluntary accreditation makes it more difficult to assess the quality of teacher education programs that have not participated in the process.

Setting standards for accreditation. Who sets the standards for accreditation? Do school health educators participate in setting the standards or is the process controlled by others, such as administrators? Is health education recognized as a profession? What status is given to courses in education? These questions illustrate the many issues involved in accreditation.

Those with expertise in school health education need to be involved in setting standards and monitoring them. NCATE has a representative from the American Alliance for Health, Physical Education, Recreation and Dance (AAHPERD) on its council. This individual may or may not be a health educator, because AAHPERD represents several disciplines.

However, NCATE does use the responsibilities and related competencies for entry-level health educators delineated in NCHEC's *Framework for the Development of Competency-Based Curricula for Entry-Level Health Educators* (1985) as its standard for judging professional preparation programs in health education. Additionally, health educators serve on panels to review the folios prepared by teacher education programs in school health education seeking NCATE accreditation. Unfortunately, when site visits are conducted, there may or may not be a health educator on the team that visits the campus and reviews a school health education teacher preparation program.

State versus national standards. To what extent are standards of professional preparation comparable? Is there a need to have different standards at the state, regional and national levels or for different types of higher education institutions? Is there overlapping jurisdiction in accreditation? How can accreditation manage different institutional philosophies about teacher education and various degree levels of programs? How are standards used?

These questions highlight some of the issues that need to be addressed. Ideally, accredited programs should improve the quality of education provided, rather than stifle the creativity of faculty in preparing professionals for practice. Any standards must allow for this.

Accreditation and individual credentialing. An additional issue is whether accreditation and individual credentialing (licensure, certification, registration) should be linked. For example, should faculty in professional preparation programs that seek accreditation be required to be certified? It has been suggested that a certification program will result in improved professional preparation programs because faculty will seek to prepare graduates to qualify for certification (National Task Force on the Preparation and Practice of Health Educators, 1986).

Credentialing of Health Education Teachers

After graduation from a professional preparation program, a school health educator might seek individual credentialing at the national and/or state level. What is the current status of individual credentialing for school health educators? What are the issues in credentialing individuals?

National Credentialing

In 1987, a National Board for Professional Teaching Standards (NBPTS) was created by a group initiated by the Carnegie Corporation to develop a system for the national certification of elementary and secondary school teachers (Barron, 1988). There has been considerable debate in favor of and against national teacher certification (Kowalski, 1988; Cleary, 1992). As previously discussed, the health education profession has already developed and implemented its own national voluntary credentialing system for all health educators, including those in schools. How the initiatives of NCHEC and NBPTS can be mutually beneficial in improving school health education is yet to be determined.

State Credentialing

In addition to the national certification currently available to all health educators (including health education teachers) from NCHEC, credentialing of teachers does occur at the state level. Each state establishes its own requirements to certify teachers employed in that state (Feistritzer, 1984). The standards for teachers in elementary and secondary education typically are different. Some states mandate by law that health education must be taught by a certified health education teacher. Separate health education certification is available, as well as dual certification (e.g., health and physical education).

The American School Health Association publishes the results of a national survey, conducted periodically since 1974, comparing school health policies established by each state. Findings in the most recent survey (Lovato, Allensworth and Chan, 1989) for elementary health certification include:

- "Twenty-one states (41 percent) offered certification for elementary health education teachers. Of the 21 states that offered elementary certification, ten offered separate certification in health education, eight offered both separate and dual certification in health and physical education and one offered dual certification in health and physical education. (Two of the 21 states did not respond to this item.)"
- "Only one state required teachers to be certified in health education in order to teach the subject in elementary schools."
- "Twenty-six states (51 percent) required elementary teachers to have course work in the subject to qualify for elementary

certification." The type of course work required varied, e.g., methods and materials, personal health and methods and materials, personal health only, health or physical education.

Regarding secondary health certification, the survey found:

- "Forty-nine states (96 percent) offered certification for secondary health teachers. Of these 49 states, 24 offered both separate and dual certification in health and physical education, 18 offered separate certification in health education, five states offered dual certification in health and physical education and two states did not respond."
- "Thirty-nine states (76.5 percent) required teachers to be certified in health education to teach the subject in secondary schools. The average number of college credit hours required for certification was 29 hours and ranged from six to fifty hours."
- "Twenty-six states (51 percent) required health education teachers to complete additional course work or attend inservice programming to maintain certification."

These data illustrate the great diversity in certification requirements from state to state. In a few states, there are voluntary registration programs for health educators. Florida, North Carolina and Alabama were reported to have such programs (Varnes and Chen, 1988).

Issues

State or national certification. With so many types of certification available, how does the professional decide which to pursue? The school health educator may have a choice between two national certifications (NBPTS and NCHEC) and state certification. A combination of a national and state certification may be most beneficial to the individual practitioner, particularly for geographical mobility and career advancement in the profession. Others may decide that one certification is sufficient for their needs.

Cost of certification and recertification. Some complain that the certification process is too costly. First, there are fees involved in becoming certified (e.g., application and examination fees). After certification is obtained, there are costs involved in meeting recertification requirements and maintaining certification. Some wonder if the benefits of certification justify these expenses.

Value of national certification. If an individual possesses state certification as a health education teacher, why would national certification be of value? As already discussed, state certification requirements vary considerably from state to state. An individual certified as a health education teacher in one state may not meet the qualifications for certification required in another state. This situation means that there is no one standard throughout the United States for who is qualified to be a health education teacher. The national certification of health education specialists by NCHEC has created a credential that sets a national standard in health education. For some school health educators, it may be beneficial to have both state and national certification.

Certified versus noncertified teachers in schools. Although some states require teacher certification in health education for those who teach the subject, this mandate can be circumvented. For example, a teacher may be assigned only one health education class and permitted to teach out of license. When several teachers are given one class each, rather than assigning one certified health education teacher to teach several health education classes, the law may be side-stepped. A professional association of health educators won a lawsuit against the New York State Education Department, which allowed 44 percent of teachers who were teaching health to do so without health education certification (Lohrmann, Gold and Jubb, 1987).

The relationship between registration and certification. In the few states where there are registries, some health educators have wondered if registration and state and national certification are all necessary. In North Carolina, for example, the Board of Registry for Health Education supports the NCHEC national certification for health education specialists and believes that the two credentialing processes serve different functions (North Carolina Board of Registry for Health Education, 1988).

Continuing Professional Development of School Health Educators

After a school health educator has completed professional preparation and obtained a credential, an additional mechanism exists for ensuring the continuing competence of professionals. This may take the form of continuing education and may be formalized in a recertification process. What is the current status of continuing professional development activities? What are the issues?

Professional Development and Continuing Education

A variety of terms are used to refer to the training of professionals after their initial preservice preparation and credentialing for professional practice. Some professions call these activities "continuing education" or "continuing professional education." The term *professional development* is a broader concept, which suggests an ongoing process of learning throughout one's professional career. The term used most commonly by professional groups in the United States is *continuing professional education* (Cervero, 1988).

Continuing professional education (CPE) serves many purposes. It may assist the individual practitioner in maintaining and enhancing professional competence. It also serves the profession as a whole by making it more responsive to new developments and practices, and may facilitate change in the broader social system. "A great deal of evidence indicates that most professions now embrace the importance of lifelong professional education" (Cervero, 1988).

At present, existing systems of continuing professional education are in the early, formative stages. However, it is anticipated these systems will develop to exceed the scope and organization of current preprofessional preparation programs. As Azzaretto (1990) explained:

> CPE of the future should link practitioner competence with service and accountability in the following ways: (1) providing practitioners with an understanding of the value dimensions and ethical context of their work; (2) developing professionals who are competent, technically expert, yet sufficiently educated to understand the human purposes of their special skills from preservice throughout their careers; and, (3) advancing specialized knowledge and expertise, while simultaneously promoting techniques of cooperation, interdependence, and interprofessional collaboration to solve society's complex problems.

Such programs will benefit not only the professionals who participate in continuing professional education, but also their professional associations, their workplaces, their clients and the larger society.

Continuing Education in Health Education

The National Commission for Health Education Credentialing (1991) has defined continuing education in health education as:

> educational experiences which assist in the development or enhancement of knowledge/or skills directly related to the seven areas of responsibility and related competencies for entry level health educators. These responsibilities and competencies are identified in *A Framework for the Development of Competency-Based Curricula for Entry Level Health Educators* (1985).

For those who are Certified Health Education Specialists, continuing education in health education is required for recertification every five years. NCHEC has a process for designating providers of continuing education in health education. This process helps to monitor and maintain the quality of educational experiences offered by designated providers.

At the state level, recertification has received increased attention. More states are now requiring teachers to renew their credentials on a continuing basis by completing additional formal college coursework or inservice training (Darling-Hammond and Berry, 1988). However, requirements vary greatly from state to state.

Issues

Costs, quality and accessibility of continuing professional education. A variety of factors need to be addressed in promoting continuing professional education in health education. One factor is the cost to the professional and to the organization providing continuing education. For most professionals in health education, the idea of paying for continuing education is new. However, it is necessary to ensure the continuing competence of practitioners. Organizations and agencies may have new opportunities to provide continuing education in health education. To do so does involve costs, but it may also be a source of revenue.

A second factor is quality. NCHEC has developed a system that will, in time, improve the quality of continuing education in health education. This national system is in its infancy, but has enormous potential.

A third factor is the accessibility of continuing education in health education. For some, particularly those in remote geographical areas, accessibility is a problem. Efforts are underway by some NCHEC-designated providers to develop new strategies, such as directed independent study, to make continuing education in health education more readily available.

School support for teacher participation in continuing professional education. The harsh realities of the financial situation in schools today limits the extent to which teachers can be released from daily activities to participate in continuing professional education. The costs to school districts might involve payment for substitutes, travel and conference/workshop expenses. While school districts may support the idea of teacher participation in continuing professional education, the costs involved may prohibit such participation.

Voluntary or compulsory continuing professional education. Should all teachers be required to complete continuing professional education throughout their careers? At present, school health educators might participate in continuing professional education to obtain salary increments. However, there are limitations on the salary increases permitted, so that ongoing continuing professional education is not assured.

Future Challenges

What can be done to ensure that credentialing contributes to better school health education? The following groups all play a role:

- teachers, administrators and school board members of public and private elementary, middle and high schools

- university students and faculty involved in school health education
- community agency personnel
- parents and other community members interested in school health education

Many challenges have been discussed throughout this chapter. Some suggestions for meeting these challenges follow.

Disseminate standards for professional preparation in school health education nationally. This action would identify the special knowledge and skills required for health education teachers. It might dispel the myth that anyone can teach health education. Our children's health is too important to allow individuals without professional preparation in health education to teach this subject. Additionally, faculty and administrators in higher education must be reminded about the importance of, requirements for and scope of professional preparation in school health education. These standards for professional preparation in school health education could be used by accrediting agencies at the national, regional and state levels.

Identify colleges and universities preparing school health educators. Numerous surveys have been conducted to identify professional preparation programs in health education with varying results. In particular, there is a need for a comprehensive listing of higher education institutions offering a major in school health education. The listing should provide some descriptive information, such as the size and qualifications of faculty, number of graduates and accreditation status. Such information could be useful to accrediting agencies, employers and prospective students.

Advocate for national standards for the preparation of health education teachers. In addition to disseminating standards for professional preparation in school health education, professional associations, higher education institutions, state education agencies and credentialing agencies could begin a dialogue to deal with the differences that exist between states in professional preparation programs in school health education. This dialogue could help determine the extent to which improvements might be made.

Establish meaningful certification requirements. At the state level, there are a variety of certification requirements in health education. Is an individual who has completed six academic credits in health education as qualified as one who is required to complete fifty academic credits for state certification? Since it would be difficult to deal with each state individually to eliminate these discrepancies, national certification may be an answer.

Support the certification process. Certification establishes a credential that attests to an individual's qualifications to practice a profession. Due to the problems with state certification, support for national certification might contribute to improving the quality of school health instruction throughout the United States.

It is still unclear how and if the two national certifications (NBPTS and NCHEC) will interface. It has taken NCHEC more than a dozen years to establish a national credentialing system for the health education profession. NBPTS is attempting to establish national certification for all elementary and secondary school teachers. The challenge here is determining how school health education will be best served. Is a specialized or a more generic national certification preferable?

Support continuing professional education. There are two kinds of support needed. First, individuals should be provided with assistance to pursue continuing professional education, such as incentives, financial reimbursement and released time from daily work. Second, professional associations, community agencies, schools and colleges must provide continuing professional education opportunities.

Promote participation in continuing professional education. An organized system of continuing professional education as part of a credentialing process has the potential for broader impact on school health education. Attitudes toward continuing professional education may need to change and new policies may be required.

School health education has many facets. Accreditation of professional preparation programs for school health educators, credentialing of health education teachers and continuing professional development of school health educators can contribute to the quality of school health instruction. The questions and issues of credentialing are challenges for all those interested in improving school health education in the United States.

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Partnerships for Comprehensive School Health

Chapter 31

Voluntary Health Organizations: The Untapped Resource

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In the United States today, more than 90 percent of all children are born healthy. Yet by the time those same healthy children have graduated from or dropped out of high school, many of them have embarked on a course of behaviors and lifestyle decisions that will lead to preventable illness and premature death. The consequences of these chosen behaviors have combined to put individuals, and even the nation, at risk.

Ironically, these dangers are mounting despite the fact that there is an excellent way to combat them. Comprehensive health education based in the schools and reinforced by the community does effectively reduce risky behaviors and maintain wellness in our students. Many voluntary health organizations have now become convinced that comprehensive school health education is one of the most effective and efficient ways to deliver their messages about preventing heart and lung disease, cancer and other preventable diseases.

At present, comprehensive school health education is not a national priority. Underfunding of comprehensive school health education (and education in general) is a chronic and critical problem. Add to this what Jonathan Kozol calls the "savage inequality" in funding that exists among public school districts, and establishing comprehensive school health education for all students becomes even more tricky. And since the worst health problems occur in schools with the lowest per capita spending, the prospect that children in these schools will make good lifestyle and health choices in the future is especially unlikely.

The need for meaningful reform has been made glaringly obvious by the health care crisis in the United States today. And, unfortunately, statistics indicate that children are very likely to fall through the health care net. In 1990, "an estimated 12.2 million children and youth under the age of 21 did not have health care coverage" (Burke, 1992). In addition, "the proportion of mothers receiving no prenatal care in the first trimester of pregnancy...ranged from 21 percent for Whites to about 40 percent for Blacks, American Indians, and Hispanics in 1987" (Rice, 1991). Lack of prenatal care is a major contributing factor to low birth weight and infant mortality.

Now, while the nation is currently involved in a process of health care and educational reform, the climate is right for comprehensive school health education to be elevated to its appropriate priority. The voluntary health organizations, with no official stake in the schools, may be uniquely suited to help fill the voids left by underfunding and lack of status and assist in making comprehensive school health education a fact for all American children.

Voluntary Health Organizations and the Schools

Although schools have historically been willing to open their doors to voluntary health organizations, they have grown more reluctant for various, often entirely valid reasons. Schools may fear a loss of autonomy in directing their own health education programs if they accept input from the voluntary organizations. Or schools frequently are simply overwhelmed by the sheer number of legitimate requests from outside organizations. After all, if they allow the American Lung Association in the door, then they must admit the American Heart Association, the American Cancer Society and the Kidney Foundation, too!

Schools that have opened their doors to voluntary health organizations may also have found themselves the recipients of a disease-specific program whose quality was dependent on the strength of the local organization. If the school system was fortunate enough to associate with a strong local unit or chapter of the voluntary health organization, the schools may have received quality volunteer support and excellent programs and materials for all students. But the school system may have had a less-than-satisfactory experience and may feel justified in shutting the doors to this organization in the future.

Actually, schools need not view today's voluntary health organization with reluctance or skepticism, in the light of current reality. Voluntaries are an often untapped and almost always misunderstood resource. Today's voluntary health organizations exist because of an unmet need, and frequently address problems largely avoidable through early education aimed at prevention.

Voluntary health organizations are extensively organized, highly motivated and broadly based; they provide a ready-made, nationwide network, already in place. While volunteers will always effect much of the field work of the organization, these volunteers are professionally trained and are chosen for their expertise and leadership abilities.

But perhaps the most important gift voluntaries have to offer comprehensive school health education is highly developed collaboration skills. To avoid duplication of effort and conserve the shrinking pool of financial resources, it has become essential for voluntary agencies to learn to work together toward common goals.

The National Action Plan for Comprehensive School Health Education sponsored by the American Cancer Society in June 1992 may best illustrate how this vital skill in collaboration can advance the institutionalization of school health education. The American Cancer Society sponsored the plan as a service to people and organizations interested in the promotion of comprehensive school health education: general educators, public health educators, school health educators and voluntary health organizations. The workshop to develop the plan did not benefit the American Cancer Society monetarily in any way, but the society anticipates that the collaboration established at the conference will advance the cause of comprehensive school health education in many far-reaching ways.

In planning this workshop, a diverse committee of health and education experts identified the following critical areas where success is crucial if comprehensive school health education is to become a reality for all children in the United States:

- policy
- educational outcomes and standards
- resources
- awareness
- professional preparation and practice
- parent, family and community involvement

Using these areas as a framework, representatives of key national organizations outlined an action plan to advance comprehensive school health education. They also indicated actions their respective organizations might best undertake. A brief description of the recommendations in each critical area provides an excellent overview of the vision for comprehensive school health education that emerged from the workshop and the ways in which voluntary organizations will be able to help the nation realize these goals.

Policy

It is imperative that comprehensive school health education be included as a central and cost-effective element of the national movement toward health care reform. This will require that federal, state and local policy-makers be educated to understand the importance of comprehensive school health education. Obtaining the commitment of leaders in government, education systems and national organizations will be essential to the process of changing public policy. There are four steps essential to this process:

1. Develop comprehensive school health education goals that will provide guidance and a means of measurement.
2. Establish a consensus-building process to develop support, commitment and funding for comprehensive school health education.
3. Evaluate needs for legislation.
4. Develop legislation and political action strategies to influence political action.

A concrete example of how voluntary health organizations can have an impact on policy is with the problem of tobacco use. "Two essential facts of tobacco use are its early age of initiation during childhood and its addictiveness" (Warner, 1989b). And in spite of the fact that tobacco consumption has reached its lowest level in a century, the death toll from lung cancer continues to rise yearly (Warner, 1989a).

Since students often begin experimenting with tobacco in their early teens, and smokers usually have established the habit by the mid-teens, tobacco education is typically a cornerstone of school health education programs (Warner et al., 1986). But a program limited to the school alone will fight an uphill battle, since there are actually fewer laws restricting children's access to cigarettes today than there were in 1964!

A school program will have a much greater chance of success if parental and media support are enlisted. The success rate will be even better when policy-makers are involved to the extent that students attend a smoke-free school and laws are passed that restrict advertising and marketing, make tobacco products more expensive, and promote clean indoor air (Warner, 1989b).

This is where the voluntaries' knowledge and expertise with advocacy can directly support school health. If the school is flying solo on a tobacco intervention, the students may gain knowledge. But a properly designed and executed, communitywide intervention will promote policies that reinforce the intervention and also change attitudes and current and future behavior.

Ten years ago, the American Heart Association, the American Lung Association and the American Cancer Society formed the National Coalition on Smoking and Health for the purpose of influencing public policy on tobacco. In just ten years, the collaboration of these three voluntary organizations has been able to effect a more responsive and responsible federal public policy toward tobacco than in previous years of the twentieth century. In fact, it is a top priority of the American Cancer Society for the 1990s to promote "legislation and regulations at all levels of government to control the use, sale, advertising and promotion of tobacco products" (American Cancer Society, 1993).

In the Land That Never, Never Was—
The Making of the Tobacco Habit

To get an idea of how the process of changing policy works in reverse, imagine a visit to the Land That Never, Never Was. In this land, the residents have never used or even heard of tobacco.

Suppose the powers-that-be in the Land That Never, Never Was want to encourage wide-spread, enthusiastic use of tobacco. To do that, they will have to come up with an effective, well-coordinated plan. First, they will have to overcome the residents' natural reluctance to do something that actually hurts. (No one has ever said that they truly enjoyed the pain, coughing and nausea induced by that first smoking experience!)

The powers will have to make tobacco readily accessible to all and will need an aggressive advertising campaign that makes tobacco look attractive, sophisticated and sexy. Tobacco will have to be affordable so that all may have it. Above all, tobacco must be legal. All of these messages will have to be repeated and recur throughout the Land That Never, Never Was in order to effect the desired behavior change.

An equally coherent and coordinated effort is called for if the United States is to reduce tobacco use and the illness that follows it. Laws must be passed that limit access to tobacco products. Taxes must be instituted that force the cost of tobacco products out of reach. Children and adults must be educated about the purposes and methods of advertising so that they may judge for themselves the content of ads. Companies and school systems must be encouraged to provide smoke-free environments for workers and students. The success of such an effort will require the collaboration of a diverse collection of organizations and institutions.

Voluntary health organizations have the know-how to work in collaboration with other members of a team. When schools recognize the very real capabilities represented by these gains in the war against tobacco use, imagine how the resources of voluntary health organizations could potentially enhance the effort to change local, state and national policy on comprehensive school health education.

Educational Outcomes and Standards

In this crucial area, the establishment of a set of national standards against which school systems may measure themselves is needed. There should be four types of standards:

1. cognitive and affective standards that describe the health education concepts and attitudes students should display at various grade levels
2. performance standards that specify student understanding, mastery of concepts and application to life of appropriate skills and behaviors
3. school performance standards that assess the school's ability to promote comprehensive school health education
4. system performance standards that can assess the quality and effectiveness of local, state and national support systems for health teaching and learning

These national standards will not constitute a national curriculum. Decisions concerning curriculum and instructional practice to meet the standards are best made at the local level.

The road to agreement on these standards may be a rocky and difficult one. After all, schools may see performance standards as yet another demand on an already overburdened delivery system. In the words of Gordon DeFriese, schools "have felt assaulted, blamed, and criticized so much over the past fifteen years that it is understandable to anticipate some resistance to an expanded set of expectations regarding educating students in the area of health, or in providing direct health service" (DeFriese et al., 1990).

Teachers, principals, school board members and other administrators are already overburdened with too large a task to accomplish in a limited amount of time. Even the traditional "basics" are being crowded out by a cry for more education on specific problems such as drugs and HIV/AIDS. In many states, such programs are already mandatory, and teachers worry about having the time to teach the three R's. Perhaps these concerns have crowded out any time that might be allotted for planned, sequential school health education for all children. How do the voluntary health organizations fit into this picture?

Eighty years of experience and billions of dollars of research have convinced the American Cancer Society that the best way to influence the reduction of incidence, morbidity and mortality from cancer is through comprehensive school health education aimed at prevention and early intervention. In other words, the most cost-effective way to prevent cancer is with early intervention, when a person is still healthy.

If it is true that a healthy child learns better, then establishing agreed-upon standards for comprehensive school health education in all schools and communities is entirely compatible with national goals for raising educational standards. This becomes especially urgent when one considers that many of the basic attitudes and skills that can be fostered in a program of comprehensive school health education, such as high self-esteem and decision-making and refusal skills, are absolutely essential to both a healthy childhood and healthy adulthood.

The major voluntary organizations have already involved themselves in the issue of educational outcomes and standards through the development of quality materials and programs. The educational tools being produced by the voluntaries are thoroughly researched to ensure that they are age-appropriate for each level. Programs and materials are field tested and evaluated before they are offered for general use.

The reasons for the involvement of voluntary health organizations in school health education outcomes and standards are altruistic, but these organizations have pragmatic experience and materials that will prove extremely helpful in the development of standards.

Resources

In establishing comprehensive school health education programs, an assessment of resources in the following areas is needed:

- human
- informational
- financial
- structural

When this assessment is completed, an infrastructure for continuing delivery of these resources can be established and strengthened.

In the discussion of educational outcomes and standards, it has been made clear that voluntary health organizations have extensive informational resources in terms of health and educational research. In addition, these organizations have established networks of volunteers numbering in the hundreds of thousands. As a result, they can offer the schools in most communities professionally prepared volunteers, whose services are donated free of charge to the community.

Perhaps the most significant issue with regard to resources, however, may be the problem of funding for public education, and, by extension, for comprehensive school health education. Most funding for public education in the United States comes from the state rather than the federal government. According to DeFriese (1990), "Local funds have become the 'discretionary' resources for ensuring that 'extra' funds are available to support curricula, personnel, or activities beyond minimal levels of support."

However, in some states, local property taxes provide 80 percent or more of the funds for public education. So funding for comprehensive school health education is further complicated when we consider resources available in individual school districts. There, the disparity in per capita expenditure for education reveals an obscene range in the underwriting of public education in districts that are geographically close and sometimes even contiguous.

Jonathan Kozol asserts that the average expenditure per pupil in New York City in 1987 was $5,500, while the city's Long Island suburbs spent $11,000 a year for each student. The highest-spending districts in New York state spent up to $15,000 yearly per student. As Kozol says, "Although dirt and water flow downhill, money and services do not" (Kozol, 1991).

Ironically, the hospital located in a poorly funded district may be the place school children from that district receive what little health education they do. But this is education after the fact, when they have already had an accident or developed a disease or an addiction that could have been prevented with good health education in the school.

This grim scenario is underscored by another discussion of school funding provided by John W. Gardner in his book *Excellence* (1984). Gardner believes that most Americans can agree upon the idea that all people deserve equality of opportunity. And if Americans do concur with this idea, they are required to eliminate "every removable obstacle to the fulfillment of the individual, whether prejudice, or ignorance, or treatable physical impairment." All U.S. schools are obviously not starting the race for health on an equal footing.

Almost no one claims that education is fully funded anywhere, and in most cases, it is dangerously underfunded. Understandably, it is the underfunded schools that have the most serious health problems. In fact, in an era when all schools are hard pressed for money, when there are precious few dollars available to duplicate already existing programs and materials, how can a school system consider itself accountable if it fails to use resources such as those freely offered by voluntary health organizations?

At this critical juncture, when the nation is struggling to reform education and health care to produce citizens who will function as productive adults and a country that can compete in a world economy, the independent sector must step in to help fill the void. Voluntary health organizations believe strongly enough in the efficacy of comprehensive school health education that they are willing to commit their own limited resources on behalf of American children.

Awareness

The main issue in the critical area of awareness is the design of communications persuasive in garnering support and action for comprehensive school health education from key groups, including:

- families
- education
- government
- business
- health
- religion
- recreation
- criminal justice
- sports
- entertainment
- community organizations
- children and youth
- social services

Leadership from these groups must be recruited for the awareness campaign, and communications must be well supported by research. Communications should be tailored to targeted groups, and coordinated with a comprehensive, multifaceted approach.

The nature of the major health enemies of youth today defines the ways in which voluntary health organizations can be helpful to school health education in the area of awareness. In the past, the health enemies of youth were infectious diseases such as smallpox, diphtheria, pertussis and polio (Mason, 1989). Schools could play some part in the prevention of these diseases by requiring students to be vaccinated or by serving as sites for vaccination campaigns. By playing even this small role in the vaccination of students, schools positively affected the health of individuals for their entire lives.

Unfortunately, there is no vaccination against the major enemies of youth today. Instead of infectious disease, behaviors have taken center stage as the major causes of morbidity for Americans (Allensworth and Kolbe, 1987). James Mason (1989), assistant secretary of health, enumerated a more realistic list of the current dangers: "heart disease and cancer, sexually transmitted disease and unintended pregnancies, drinking and drug use, motor vehicle trauma and suicide."

In light of the changing dangers, schools can still set the stage for a healthy future life for their students, but "schools alone cannot dramatically succeed, especially when the community environment promotes risk-taking behavior" (Kirby, 1990). Voluntary organizations are particularly sensitive to the ways in which behaviors shape health. They also have professionally staffed media departments that are adept at helping communities raise awareness of health issues.

The massive task of educating for awareness cannot be accomplished by the schools alone. Parents, the government and the private sector, the for-profit organizations and the not-for-profit organizations must all be drawn into the process. It may be helpful to think of the voluntary health organizations as unpaid consultants who bring needed support and enhancement to comprehensive school health education. Even more important than skill in developing kits and comic books may be the voluntaries' expertise in working with the media and policy-makers.

The schools must be at the hub of the process, preserving their right to determine the health education curriculum for their students, but enlarging the schools' role in reaching out and asking for outside help and resources. School/community health committees, administered by the schools but utilizing a variety of community resources, including the voluntary health organizations, could go a long way toward creating an awareness success story.

Professional Preparation and Practice

The lack of funds for health education professionals and lack of teacher training in health education continues to present a major obstacle to program implementation and effectiveness. The following are essential elements of this critical area:

- upgrading higher education preservice for prekindergarten through grade 12 teacher professional preparation in health education
- implementing and/or upgrading required health education courses for all preservice teachers, regardless of majors
- providing quality inservice and professional staff development programs
- enhancing and monitoring professional standards and competencies of health educators

A primary way the voluntary health organizations can be involved in this area is by offering professionally prepared materials and expertise in the form of inservice training for teachers and other school personnel. For example, cardiovascular disease and cancer are currently the top two causes of death in the United

States. The only way to lower the rate of disease and premature death from cancer and cardiovascular disease is to educate and motivate people early and well about the lifestyle choices that cause heart problems and cancer in the first place. Suppose these facts are put into the context of school health education. If children who know little about the causes of heart disease and cancer go to school and are offered only high-fat food choices in the lunchroom, they may already be establishing a pattern that will foster disaster in the future.

The American Cancer Society curriculum *Changing the Course* is designed to educate not only students about food choices, but also the food service purveyors in the school. ACS volunteers can train teachers to implement the curriculum and can provide support and instruction to food service workers as well. This is only one example of a way in which voluntary organizations may be involved in professional preparation at no cost to a school system.

Parent, Family and Community Involvement

The value of involving parents, families and the broader community as partners in the planning of a comprehensive school health education program cannot be overemphasized. This involvement ensures that the strategies developed at the school are responsive to family and community values and cultural and ethnic-specific needs, and ensures that comprehensive school health education is part of the student's experience as a child in a family, growing up in a community.

Recommendations for this critical area include:

- development of planning and leadership processes that foster parent, family and community involvement in comprehensive school health education
- formation of a broad-based coalition to promote comprehensive school health education as a top priority for this country

- targeting families, parents and the community with effective communications that address the importance of comprehensive school health education
- a blueprint for communities to use in assessing existing resources and identifying and developing new resources
- assessment, research and evaluations that demonstrate the value of comprehensive school health education

Any well-designed program of comprehensive school health education necessarily involves the school, parents, families and community organizations. In fact, a school-based intensive intervention will almost surely fail without constant reinforcement and a concurrent effort in the community and family.

According to Schorr (1989a), two common denominators of effective health education are that an intervention is (1) comprehensive, and (2) has a family and community orientation. In fact, says Schorr, "Gains are likely to be largest and to be sustained when there is support in the total ecology of the child."

To vividly illustrate how the voluntary health organizations' community involvement can effect positive change for comprehensive school health education, we may turn again to the example of tobacco. According to Warner (1989a), "As a result of campaign-induced decisions not to smoke, between 1964 and 1985 an estimated 789,200 Americans avoided or postponed smoking-related deaths and gained an average of 21 additional years of life expectancy each." The voluntary health organizations are literally saving people's lives through effective early education aimed at prevention.

Research indicates that children are most responsive to antitobacco information from the ages of eight to ten, and voluntary health organizations have developed age-appropriate materials. Voluntary health organizations have referral information and cessation groups for students and parents. They have support groups for those who have developed tobacco-related disease. In short, while a tobacco education program may rightfully begin with the schools, voluntary health organizations can provide components that help complete an intervention.

In the school itself, a voluntary health organization such as the American Cancer Society can fill such roles as provider of inservice education for food handlers, guest lecturer, and provider of free, state-of-the-art, pretested and age-appropriate materials. Outside the school, the society and organizations such as the American Heart Association, the American Lung Association and the March of Dimes can offer their skills at shaping public policy, enlisting media support for a program and educating parents.

Voluntary health organizations, with their extensive network of volunteers, stand poised to enter into collaboration with parents, families and schools to institutionalize comprehensive school health education. And these organizations can contribute without taking over, determining curriculum or usurping teachers' proper role.

Making Comprehensive School Health Education a Priority

According to *Healthy People 2000*, "Schools offer the most systematic and efficient means available to improve the health of youth and enable young people to avoid health risks" (U.S. Department of Health and Human Services, 1991). However, the painful reality is that fewer than half of our states require comprehensive school health education, let alone comprehensive school health programming, and fewer still have successfully implemented such a program.

One of the most time-honored principles of public health is that access to the means for attainment and preservation of health is a basic human right. Yet, in our country, we struggle with worsening problems of access for even rudimentary care of illness. An alarming 20 percent of preschool children have not been vaccinated, and nineteen out of twenty children and adolescents are denied the advantage of comprehensive school health. And when one considers that our government spends $15 million each day on the B-2 Bomber and only 75 cents each day per school district on comprehensive school health education, it is clear that comprehensive school health education is not currently a priority in the United States (Seffrin, 1991).

Comprehensive school health education will have assumed the status of a priority when the following five criteria have been met:

1. There is a general understanding of the issue of comprehensive school health education.
2. A broad consensus exists on the direction our nation must take on comprehensive school health education.
3. Support for comprehensive school health education is strong enough to motivate people to take a stand.
4. There is a level of commitment sufficient for people to act.
5. Comprehensive school health education receives adequate funding that includes teacher and administrator training.

Voluntary health organizations can be invaluable in any effort to establish the priority of comprehensive school health education, in part because they can help address each of the above-cited criteria.

The timing is right for school systems to take advantage of the prominence of voluntary health organizations in elevating comprehensive school health education as a priority, and to enlist the help of these organizations in using community resources properly. In the comprehensive school health education program envisioned here, the school system would organize in such a way as to properly use voluntary health organizations and disease-specific organizations to their best advantage, retaining the school's authority as policy setter and taking the worry out of opening the door to outside resources.

Although the voluntary health organizations will not take leadership roles in all of the critical areas defined by the National Action Plan for Comprehensive School Health Education, they can certainly contribute to all areas and will provide leadership in the areas of policy, awareness, resources, and parent, family and community involvement (American Cancer Society, 1993).

The obstacles that lie in the path of institutionalized comprehensive school health education are formidable. Nevertheless, with effort and persistence, as Allensworth and Kolbe (1987) have written, "the future of young people may be brighter than ever before." Voluntary health organizations want to be a part of that bright future.

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Chapter 32

Community/School Partnerships: A Vision for the Future

Diane K. Siri, MA

Millions of American children and their families are depending on organizational change to restructure children's services. The challenge is clear. Many states are finding that current systems for supporting and helping families are fragmented, inconsistent, duplicative and ineffective. Comprehensive national and state social policy is lacking, and there are few means of ensuring agency effectiveness and collaboration on behalf of individual children. Our nation faces tremendous challenges. The problems faced by a family in crisis are not compartmentalized; yet services are often delivered in a fragmented way, and services provided for children are seldom coordinated.

Student risk factors point to variables far beyond the reach of the classroom teacher, yet the effects of family turmoil are seen daily in classroom failure. Teenage parents, homeless teens, drug-involved students and high school dropouts are taxing limited social services resources. Our families and communities can no longer afford a fragmented approach to children's services, with gaps and duplications that result in wasted funds while families in crisis are left unserved.

One of the organizational changes being explored is a new collaborative effort among all services for children. Community/school partnerships are not limited to the integration of education, health and social services. They are not simply a merger of the partners, but rather a collaborative approach to planning and delivery of services in a timely and comprehensive manner, with a focus on prevention.

Why can so few people receive treatment services before they've hit bottom? Why are preventive health services not readily available for all children? Why have we declared students ineligible for tutoring until after they fail? A partnership allows local communities to deal with issues beyond the resources of the individual agencies, with pooled resources providing a greater benefit to all.

Community/school partnerships offer hope for needed reform in child-centered service delivery. Although each community will create unique models, some trends are emerging. Awareness of potential problems may also prevent duplication of common mistakes.

Most newly coordinated service models are provided in accessible neighborhood locations, often linked to school or community sites. Multiagency collaboratives are being designed to address diverse cultural needs. A range of services can be customized for unique community needs.

Although integrated children's services make sense to families and children, the challenges faced by agencies and schools trying to make it happen are formidable. True collaboration doesn't happen overnight, even when all parties agree that change is needed. Our training, vocabulary, funding, organization and legal guidelines all work against the integration of services.

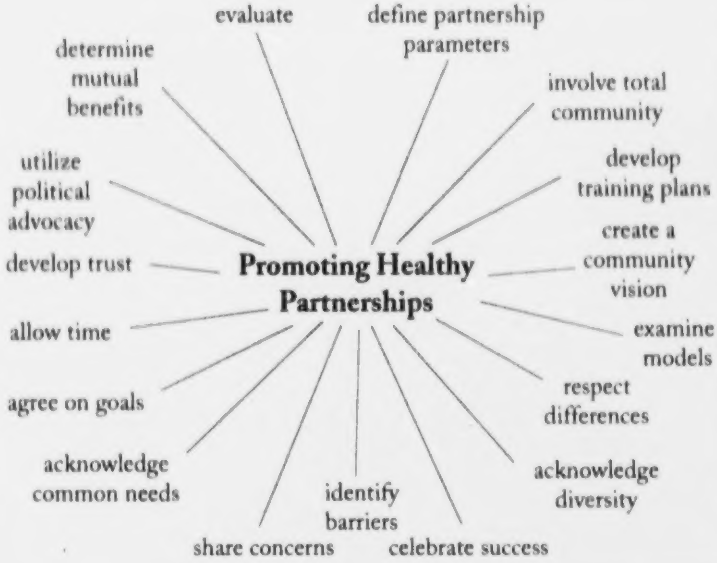
Getting Started

There is not one model nor is there one right way to start, but one way to bring key players together is to acknowledge the problems. A community can create a children's report card to raise awareness about important issues and spotlight successes. Local areas of need can be compared to national and state norms. The beginning discussion of problems sets the stage for change, determines common goals and builds trust and respect. Figure 1, Promoting Healthy Partnerships, depicts some of the steps in the process.

Learning the Current System

Some states have hundreds of separate programs with separate

Figure 1
Promoting Healthy Partnerships


evaluate
define partnership parameters
determine mutual benefits
involve total community
utilize political advocacy
develop training plans
create a community vision
develop trust
Promoting Healthy Partnerships
allow time
examine models
respect differences
agree on goals
acknowledge common needs
identify barriers
acknowledge diversity
share concerns
celebrate success

requirements, administered by forty to sixty separate agencies, all designed to assist children and families. All community players must understand the range of services currently available. Funding restrictions and service criteria are important areas of discussion and essential for future planning. Even in small communities, it is not unusual to find a lack of awareness among professionals working in the service fields. Learning each others' systems creates an appreciation of similarities. This important step is often skipped and is all too easy to take for granted.

Defining School-Linked Community/School Partnerships

It is important to define what community/school partnerships are and are not. A great deal of anxiety can be avoided if pilot areas are determined early in the process. Time spent at this stage in defining the parameters of your partnership could save members from incorrect assumptions. One characteristic of new partnerships is the need to be more specific and take less for granted as they cross agency boundaries.

Gathering Stakeholders

See that all key players are included early in the process; it may be difficult to invite new members later. Do not overlook formal and informal community leaders. Real partnerships initially occur between people, not institutions. The leaders must participate directly at the beginning as policy commitments are made. Partnership structure, including committees or boards, should be formalized early, but revisions in structure should be encouraged as planning expands the scope of the partnership.

Acknowledging Recipients of Services

Those who receive current services are rarely involved in the planning or the evaluation of those services. Children and families are often "acted upon" by the system. Viewing recipients as customers rather than clients may pave the way for creative improvements in the quality and effectiveness of current programs. Often, families involved in the planning of program options will feel more responsibility for their own success.

Creating a Community Vision

Create a common direction and then continue to return to common goals frequently. The result of many years of working with separately funded projects has left us with services that appear with the current new answer, while other projects disappear as their specific funding is exhausted. A community vision with consistency and focus instead seeks ongoing funding for priority needs.

Acknowledging Community Diversity

Professionals working in school-linked services may be most successful when they reflect the diversity of the local area. Services must acknowledge cultural norms and be culturally and linguistically compatible. It may be necessary at this point to conduct some information-gathering and sharing activities regarding the demographic changes in your community. Explore the implications of the community changes for service needs and delivery. You may need to develop strategies for input from diverse community representatives if your planning group does not reflect the local community.

Agency Buy-In

Involvement at all levels is essential for true collaborative service delivery. From policy makers to line staff workers, everyone must be involved as early as possible. The challenge is to inform and translate the partnership goals into simple concepts that everyone can understand and share with others. If not every member understands the implications of the proposed collaboration, the threat of change will undermine the larger goal.

Adequate Time

Planning time may seem to slow things down in the short term, but long-term results depend on the development of sound, trusting relationships. The need to involve so many people requires ample time, so patience is a must when new partnerships are being developed and nurtured.

Identification of Barriers

Identify local, state and national barriers to collaborative efforts and develop strategies to overcome these perceived barriers. This discussion can be valuable. The group could focus on program requirements, funding restrictions, confidentiality barriers, compatibility of information issues, paperwork requirements, job classification conflicts, common eligibility restrictions and case management possibilities. Look at possible union or contract problems early in the process. If you have already involved key leaders, areas of conflict can be anticipated. Many communities find the actual barriers are far less than those perceived, but a comprehensive review process is beneficial.

Coordination of Community Plans

Review all long-range plans, strategic plans, master plans and commission goals early in the process. Agencies and members who see no tie-in of partnership goals to their own goals will see little reason to commit real time and resources.

Examine Models

Rarely can a unique community duplicate another partnership, but it is important to gather ideas to foster new program design and delivery. Avoid project mentality of merely duplicating successful models imported from other areas. Community/school partnerships flourish by going through the process of creating a vision, rather than duplicating another community's plan. Members need to develop their own ideas, based on a particular community's situation.

Staff Training

The development of a staff training model is a crucial component of new partnerships. Cross-training within each member agency and multiagency training are usually required, since few of us ventured out of our own disciplines when we were originally trained. It is unreasonable to expect to make major changes in service delivery without training all staff in new strategies. Allow ample time for cross-agency discussion in both the planning and training process. The area of cross-agency case managers may develop as a key training focus.

Political Advocacy

Do not overlook the political implications of proposed changes. State and local elected officials need to be involved early. Information can be shared with frequent updates. Stay up to date on legislative opportunities, special legislation that may be required and constituents' concerns.

Evaluation

How will we know if community partnerships reflect real change that promotes better services for children and families or are just a different delivery method? Assessment procedures need to be in place very early. No matter how much collaboration is taking place, if family conditions remain unchanged, efforts have not worked. Outcome measures must be meaningful, and measurable cost savings should be documented. Service scope and expansion as duplication is eliminated must be recorded in detail by all partners involved.

Marketing the Program and Celebrating Success

Finally, it is very easy to get caught up in all of the other areas and forget to market the proposed partnerships. A business would never release a new product without field tests and marketing plans. Encourage media coverage of all phases of the process so that community awareness is available as changes occur. It is also helpful to celebrate attainment of intermediate goals. New partners need encouragement to reinforce the commitment to change. There are many creative ways to celebrate. Take the time at each stage to recognize progress.

Dealing with Potential Problems

In order to avoid problems as you nurture a new partnership, it often helps to see why some promising ventures that began with high hopes either failed to produce real differences or fell prey to power struggles. True partnerships are made up of people, not organizations. A patronizing attitude can undermine the entire effort. The ability to listen, discuss and consider creative possibilities becomes more important than power and control. The change in key players is often a dangerous time.

A partnership may also founder if the original need changes. If a partnership is formed because of a project or funding incentive and that incentive is eliminated, the agencies may move in different directions. It is important to reexamine goals at this crucial point.

If the original partnership was based on uneven levels of commitment, there may be a built-in problem. If the organizations are of different size, there may be a basic inequality of power. This inequity may give one partner the ability to threaten withdrawal, creating a power struggle. All parties should commit similar resources so that funding cannot dictate control. The commitment of competent staff of similar authority adds to a strong partnership with equal representation. If participants are able to focus on the big picture, and if all can agree to avoid withholding information or using unique vocabulary, imbalances of power often can be avoided.

In economically tough times, a partnership can be undermined if agencies are forced to compete against each other for funding. Although this conflict is most dangerous with local funding, it can occur in the state or national funding arena also. It is a true test of the trust and relationships that have been created when partners are pitted against one another in the political arena. Possible anticipated agreements may prevent surprises.

A real collaborative venture must be built on mutual benefit. Few partnerships will continue unless the effort pays off in equal gains. If all benefits flow one way, partner commitments will begin to deteriorate. If the time required is not worth the end result, enthusiasm will diminish.

As many agencies work together with blurred lines of authorities and loyalties, some partners may experience conflict. Other coworkers may see them as selling out and may be threatened by the changes. Communication within each organization and between partner agencies becomes crucial.

In partnership activities, much of the effort is needed at the very early stages to create a sound base. Some who have tried it feel 50 percent of the total effort is needed just to create the partnership, with an additional 25 percent devoted to developing the plan. The remaining 25 percent goes toward implementation and evaluation. A weak base of trust may undermine all future activities, from ideas to implementation.

Understanding and commitment from all levels is vital. Again, communication is a key requirement. Decision and policy-makers must be kept informed; and their commitment must be public and sincere. Middle management can undermine the entire process if left out of any step, from planning to implementation. The support of line staff is crucial in guaranteeing a final product that promotes true change within the delivery of services. Clients are another key group. As the receivers of the services, they must be involved as never before. Turf battles must give way to common goals.

Adequate time and funding resources are crucial to the success of the partnership. Adequate and competent staff must be given ample time to do a quality job. New partnership responsibilities cannot simply be added to previous job requirements. Without adequate incentives for success, the fragile new relationships will not survive. It is a mistake to shortcut time or mislead partners into believing that change will be easy.

The new partnership needs to be institutionalized beyond the individuals involved, with clear guidelines as to the scope of collaborative activities. To avoid unilateral decisions, everyone must understand the partnership areas. A common framework is important, as members bounce against newly established limits. Partnerships can fall apart as boundaries are opened if individuals or systems are mismatched.

The most powerful enemy of innovation may be the unacknowledged fear of change, even among the strongest supporters of the new partnership. The politics within the member agencies should not be underestimated. Leadership and resource changes can bring about fear and jealousy as new priorities emerge.

Some of the barriers new partnerships encounter were created to build boundaries. Gatekeepers become very nervous as rules change. Some waivers of state and national regulations may be needed to allow true interagency delivery and funding, but many of the barriers to sharing information are perceived or self-created. Political relationships created early in the process can assist in dealing with problems as they arise.

Long-term changes must materialize if the new partnership is to thrive. Members will gradually lose interest if there is no tangible benefit. Built-in celebrations help make everyone aware of the progress toward long-term goals. The natural resistance toward change will present real danger if the focus does not remain on the long-term benefits.

Professional training changes will help managers learn to work with partners rather than supervise subordinates. Many managers providing our current leadership were trained in and have practiced very traditional methods of authoritarian decision making. Partnerships often confuse lines of authority as agency boundaries and supervision models are crossed. A retraining plan can address this. Cross-agency supervisor jobs can also help provide a forum. Some universities, for example, are developing interagency training programs.

Although there is little integration of professional schools and training programs on most college and university campuses, the new trend is promising. The current practice of separate buildings and requirements and nonreciprocal courses actively discourages student contact, let alone cross-training. Teachers are educated in one school, social welfare workers in another. Juvenile justice students and staff rarely venture into public health departments. Our credentials and licenses create barriers instead of connections. Our professional conferences are compartmentalized and exclusive rather than inclusive. We have a long way to go before interdependent models are institutionalized in professional training programs, but discussion and planning are occurring all over the country.

Real Children, Real Families in Crisis

Some children grow up with consistent support and opportunities for a healthy start. Others encounter poverty and despair. Some are born into families enthusiastically awaiting their arrival. Others are born to teenage, single moms or arrive addicted to drugs in families unable to provide for even the most basic physical or emotional needs. All children are at risk at some point, and all need a safety net provided by supportive adults. The less fortunate depend on receiving some of that support from the community.

All of the changes mentioned earlier become meaningful only if they make a difference and provide better services to children and families. A new service delivery system can provide more coordinated services for families needing assistance from multiple agencies and can prevent children from falling through the cracks.

Let's look at some possible cases needing assistance from our current range of services.

Misty

Misty had experienced many challenges in her thirteen years. She was referred to the school counselor for refusing to dress in P.E. clothes for the eighth grade gymnastics class. Misty was belligerent and offered no excuse for her continued refusal. Instead of suspending her, the counselor decided to do an unusual home visit. (With more than four hundred students per counselor, individual visits were hard to fit in.) When the counselor reached Misty's home, she was unprepared for the family situation presented.

Misty lived with her mother, her mother's boyfriend, a younger sister and an older brother in a migrant labor camp trailer. The trailer was not a mobile home, but a travel trailer, the kind often pulled behind a car. There was one mattress on the floor at the end of the trailer, and no one ever explained where the five individuals slept.

Misty's mother was obviously drunk at 9:00 a.m. When the counselor started to bring up the problems at school, the mother said that there was little she could do since her boyfriend was in jail because some social worker said he had "messed" with Misty's younger sister. She went on to complain that her son was back home after being discharged from the Navy for heroin use. They had no money, no jobs and no future.

There were no fewer than five agencies working with the family, but there was no central case worker aware of all of the school problems, substance abuse, physical abuse, housing problems, joblessness and other multiple issues.

The counselor, overwhelmed by the situation, left and took Misty to the department store to buy her P.E. clothes. The counselor had no way of coordinating with other agencies; in fact, she didn't even know what other agencies were involved. Meanwhile, other well-intentioned workers were diligently trying to rectify their piece of the problem.

Misty never made it to high school. She was later enrolled in a residential drug rehabilitation center as a drug-addicted, teenage prostitute.

Marco

Marco found support and a family within a Latino gang. He was a very bright young man with leadership potential. An enthusiastic recreational leader spotted Marco's athletic talent and made personal time to work with Marco and get him into competitive sports. The man also tutored Marco in his school subjects to guarantee his grades would allow him to attend college. Even with this strong adult advocate, Marco faltered frequently. He often felt caught between his grandmother (both of Marco's parents were in prison), his friends in the gang, his need to work to support the family, his academic schedule and his love of athletics.

Marco was within two weeks of graduation, with the promise of a full college scholarship, when he was involved in a gang shooting of another teenager in a rival gang. His dream of leaving town was realized, but he was incarcerated on graduation, awaiting trial as an adult. Marco is now in prison. The adults of his world still talk about his talent and skill while shaking their heads and wondering what went wrong. A lifetime of agency assistance brought him to a prison program destined to cost twice as much per year as his college scholarship would have.

Alice

Alice was a young teenager with everything going for her. She was happy and well adjusted until her sophomore year ended with her father's death in an automobile accident. Alice's mother quickly remarried over the summer to a man she barely knew.

At the end of her junior year, Alice was sent to a nonprofit counseling service because her grade point average had plunged and she was falling asleep in class. A sobbing Alice admitted in the second counseling session that she had been raped by her new stepfather and was almost five months pregnant. The counselor called Child Protective Services, and Alice was immediately dealing with eight adults she had never met before.

Child protective workers were joined by foster parents as Alice was taken from her home. Her stepfather denied the accusation, and her bewildered mother accused Alice of many things. The legal system, school administrators and public health officials all descended on Alice with immediate decisions to make and reams of paperwork to fill out with no family support to help her.

Alice committed suicide that weekend. No one had ever attempted to coordinate the crisis.

The Challenges

These examples all describe very different challenges to the existing service delivery system. Workers constantly deal with judgment calls on qualification criteria and priority services, with never enough time or money. Workers often realize that family needs are not being met.

The school does not provide teachers with time outside the classroom to work with parents. School counselors and social workers have caseloads and administrative paperwork that allow them little more than a crisis orientation. The department of social services often can't provide families with preventive services until it is too late. They are drowning in incident reports.

Few coordinated case management systems are in place that cross agency boundaries. Probation workers see far too many individual family members. Drug and alcohol prevention funds are decreasing again; job training, housing, childcare and health services are not available to everyone in the community. Agencies committed to the same end results are sometimes forced to compete for too few resources. The list of excuses goes on and on.

It is too late for Misty, Marco and Alice, but millions of other children and families are waiting for change.

Looking to the Future

In world trends, we have seen change as never before in history. Countries have moved from isolationist theories to global partnerships. The Soviet Union will never be the same, and the Berlin Wall has crumbled to create a united Germany. The self-reliance advocated by Ralph Waldo Emerson gave way to John F. Kennedy describing Americans as boats rising together rather than with independent tides.

Legislation such as the National Cooperative Research Act of 1984 loosened antitrust restrictions to encourage joint research and development. The union movement and labor management relations and attitudes have changed in many industries to that of cooperation based on mutual interests. There is a growing realization that change promotes innovation and that growth in social services has created duplication of effort. The decade leading into the year 2000 looks to be the decade of change in the public and private sector worldwide.

As we move into this era of privatization, choice and family responsibilities, most would agree that they would rush to sign their children up for a program that spends more than $20,000 per participant. The state and federal government share all program costs. Participants receive board and room. The program offers vocational training, recreation and health services. The staffing ratio is one to three. The dropout problem is nonexistent.

Unfortunately, the system being described is the prison and juvenile detention program, which is facing increasing demands as our prevention programs disappear with each new funding crisis. Safety nets for families are rapidly disappearing. As business and government strive for global agreements, we in the children's service field must look beyond our current solutions to create partnerships to meet the needs of families in the year 2000. Figure 2, Evaluation of Community/School Partnerships, is suggested as a guide.

Figure 2
Evolution of Community/School Partnerships

	Cooperation	◄————►	**Collaboration**
goals	individual	share information	integrated, planned, seek input or common goals
management	hierarchical	access to decisions and information	manage by influence, team decision, egalitarian, participatory
decisions	unilateral	advisory input	consensus, shared decision model
language	shared meanings	demystify jargon	common language
training	invite to each other's events	use each other's speakers	co-train to retrain
resources	in kind requirements; barriers	jointly fund project	shared resources and staff
facilities	meet in neutral territory	share temporary space	school-linked services
evaluation	publish individual results together	set accountability measures together to achieve individually	total evaluation of common goals
change	preserve bureaucracy	experimentation	reward innovations

Appendix A

National Education Goals

By the Year 2000…

Goal 1. All children in America will start school ready to learn.

Goal 2. The high school graduation rate will increase to at least 90 percent.

Goal 3. Students will…[demonstrate] competency in challenging subject matter, including English, mathematics, science, history and geography; and every school, will ensure that all students learn to use their minds well, so they may be prepared for responsible citizenship, further learning and productive employment in our modern economy.

Goal 4. U.S. students will be first in the world in science and mathematics achievement.

Goal 5. Every adult American will be literate and will possess the knowledge and skills necessary to compete in a global economy and exercise the rights and responsibilities of citizenship.

Goal 6. Every school in America will be free of drugs and violence and will offer a disciplined environment conducive to learning.

Source: *AMERICA 2000: An Education Strategy.* 1991. U.S. Department of Education.

Appendix B

Report of the 1990 Joint Committee on Health Education Terminology

One of the essential underpinnings of any profession is a body of well-defined terms used to enable members to communicate easily and with the clarity necessary for understanding among themselves and with others. The field of health education has changed dramatically in the past two decades. The definitions in this report provide a common interpretation of terms frequently used by health educators in a variety of settings. Therefore, the terms presented here are defined for use by the professional health educator as well as by other individuals and groups.

The Committee recognized that other health professionals (e.g., physicians, nurses, etc.) are concerned with and involved in health education as a part of their professional role and that they may have a different orientation. Consequently, they may use different terminology from that contained in this report. It is hoped, however, that the terms defined will be of help to these groups to clarify terminology used by health education professionals.

Words referring to health service and related personnel (e.g., patient educator, health counselor) or words which are in general use and understood by a variety of professionals (e.g., mass communication, objectives, self-help, self-

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Source: Report of the 1990 Joint Committee on Health Education Terminology. 1991. *Journal of Health Education* 22 (2): 97–108. Reprinted with permission.

care, evaluation) are not included. The Committee chose to define community and school health education and associated terminology, because degrees are offered in these areas. Other areas (e.g., patient and worksite health education) were omitted because they tend to be areas of emphasis rather than degrees.

There may be other interpretations of the words defined; however, those presented in this report are as many health educators view them today. The terms included reflect trends, concepts and practices. They help to explain what the profession is, who its practitioners are and how they function. Additional uses might include the following:

- articulating the health education professional preparation program to other units on college and university campuses
- assisting governmental agencies in planning effective health education policies and programs
- assisting educational boards in determining appropriate health education word usage
- guiding accrediting and credentialing agencies
- explaining the field of practice to other professionals
- establishing a basis for consistency of language usage in the professional literature and in research endeavors and grantsmanship

Historically, the Public Health Education Section of the American Public Health Association (APHA) developed a statement of terminology about 1927(1). The first committee report on terminology was published by the American Physical Education Association in 1934(2). The American Association for Health, Physical Education, and Recreation (AAHPER) presented a report on health and physical education terminology in 1950-51(3). Another AAHPER joint committee was appointed in 1962 to foster and improve understanding on the part of school and public health educators(4). After nine years, AAHPER again took the lead which resulted in a 1973 joint committee terminology report(5). In 1990, the Association for the Advancement of Health Education (AAHE), an Association of the American Alliance for Health, Physical Education, Recreation and Dance, continued this leadership by convening a joint committee of delegates of the Coalition of National Health Education Organizations (CNHEO)* and a representative from the

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*The Coalition was established in 1973 to provide a vehicle for collaboration of all major national health education organizations. Its primary mission is to mobilize the resources of the Health Education profession in order to expand and improve health education, regardless of the setting. Each member organization appoints one delegate and one alternate. The following organizations are members: American Public Health Associa-

American Academy of Pediatrics to update the earlier terms and to add relevant new definitions.

The Association for the Advancement of Health Education provided staff support as well as funding for the Terminology Committee meeting. Additional financial support for dissemination of the report was contributed by the majority of organizations represented. The meeting was convened at the AAHE/AAHPERD headquarters in Reston, Virginia, August 2-5, 1990.

Process of Formulating the Definitions

The charge to the Committee was to review the 1973 Report of the Joint Committee on Health Education Terminology, to determine which terms are still relevant, to delete those considered outdated, to revise as deemed appropriate, and to add new terms currently used in the health education field. Individual members came with reference documents to be used in the process. AAHE library materials also were available. The committee was cochaired by the coordinator of the Coalition and the AAHE delegate to the Coalition.

A draft document was completed during the meeting and subsequently circulated to a select number of outside reviewers for comment. The final document was presented as a Committee Report to the AAHE Board of Directors.

After acceptance by the AAHE Board of Directors, the Report was published in the *Journal of Health Education* and copies were provided to organizations whose delegates served on the Joint Committee. Each organization was encouraged to disseminate the final report to a wide audience.

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tion, School Health Education and Services Section and the Public Health Education and Health Promotion Section; American College Health Association; American School Health Association; Association for the Advancement of Health Education, American Alliance for Health, Physical Education, Recreation and Dance; Association of State and Territorial Directors of Public Health Education; Society for Public Health Education, Inc.; and the Society of State Directors of Health, Physical Education and Recreation.

The Coalition facilitates national level communication, collaboration and coordination among the member organizations; provides a forum for the identification and discussion of health education issues; formulates recommendations and takes appropriate action on issues affecting member interests; serves as a communication and advisory resource for agencies, organizations and persons in the public and private sectors on health education issues; and serves as a focus for the exploration and resolution of issues pertinent to professional health educator.

Criteria

The 1973 report was reviewed carefully. Some terms from this report were excluded, some repeated verbatim, some revised, and new terms were added based upon the criteria listed below.

Essentialness—is basic to the field of health education and necessary for communication.

Authoritativeness—is recognized or accepted by the profession as official language.

Significance—is so important in communication within and among groups that its use requires common interpretation.

Encompassment—is sufficiently broad and inclusive to eliminate unnecessary additional definitions but is restrictive enough to have clear meaning.

Usage—occurs frequently enough to affect and effect communication.

Adaptability—can be used effectively by various health professions and other individuals and groups.

Clarity—definition is necessary to maintain consistency of use among disciplines.

A. Contextual Definitions

Health education takes place within the broad context of health. Certain health terms are defined to clarify how health education functions. These are:

Health

There are many definitions written for the word *health*. Three examples are provided.

- "A state of complete physical, mental, and social well-being, and not merely the absence of disease and infirmity" (World Health Organization, 1946).
- "A quality of life involving dynamic interaction and independence among the individual's physical well-being, his (sic) mental and emotional reactions, and the social complex in which he (sic) exists" (Health Education).
- "An integrated method of functioning which is oriented toward maximizing the potential of which the individual is capable. It requires that the individual maintain a continuum of balance and purposeful direction with the environment where he (sic) is functioning" (Dunn, 1967).

Health Promotion and Disease Prevention

Health promotion and disease prevention is the aggregate of all purposeful activities designed to improve personal and public health through a combination of strategies, including the competent implementation of behavioral change strategies, health education, health protection measures, risk factor detection, health enhancement and health maintenance.

Healthy Lifestyle

A healthy lifestyle is a set of health-enhancing behaviors, shaped by internally consistent values, attitudes, beliefs and external social and cultural forces.

Official Health Agency

An official health agency is a publicly supported governmental organization mandated by law and/or regulation for the protection and improvement of the health of the public.

Voluntary Health Organization

A voluntary health organization is a nonprofit association supported by contributions dedicated to conducting research and providing education and/or services related to particular health problems or concerns.

(Note: Private voluntary organization—PVO—is the term used outside the U.S.A. to denote a voluntary health organization; in some countries and in connection with the United Nations, the term nongovernmental organization—NGO—is used.)

Private Health Agency

A private health agency is a profit or nonprofit organization devoted to providing primary, secondary and/or tertiary health services, which may include health education.

B. Primary Health Education Definitions

Certain health education terms are generic and are defined here, as follows:

Health Education Field

The health education field is that multidisciplinary practice which is concerned with designing, implementing and evaluating educational programs that enable individuals, families, groups, organizations and communities to play active roles in achieving, protecting and sustaining health.

Health Education Process

The health education process is that continuum of learning which enables people, as individuals and as members of social structures, to voluntarily make decisions, modify behaviors and change social conditions in ways which are health enhancing.

Health Education Program

A health education program is a planned combination of activities developed with the involvement of specific populations and based on a needs assessment, sound principles of education and periodic evaluation using a clear set of goals and objectives.

Health Educator

A health educator is a practitioner who is professionally prepared in the field of health education, who demonstrates competence in both theory and practice and who accepts responsibility to advance the aims of the health education profession.

Examples of settings for health educators and the application of health education include, but are not limited to, the following:

- schools
- communities
- post-secondary educational institutions
- medical care institutions
- voluntary health organizations
- worksites (business and industry)
- rehabilitation centers
- professional associations
- governmental agencies
- public health agencies
- environmental agencies
- mental health agencies

Certified Health Education Specialist (CHES)

A certified health education specialist (CHES) is an individual who is credentialed as a result of demonstrating competency based on criteria established by the National Commission for Health Education Credentialing, Inc. (NCHEC).

Health Education Coordinator

A health education coordinator is a professional health educator who is responsible for the management and coordination of all health education policies, activities and resources within a particular setting or circumstance.

Health Education Administrator

A health education administrator is a professional health educator who has the authority and responsibility for the management and coordination of all health education policies, activities and resources within a particular setting or circumstance.

Health Information

Health information is the content of communications based on data derived from systematic and scientific methods as they relate to health issues, policies, programs, services and other aspects of individual and public health, which can be used for informing various populations and in planning health education activities.

Health Literacy

Health literacy is the capacity of an individual to obtain, interpret and understand basic health information and services and the competence to use such information and services in ways which are health enhancing.

*Health Advising***

Health advising is a process of informing and assisting individuals or groups in making decisions and solving problems related to health.

C. Definitions Related to Community Settings

The terms that relate more specifically to community or public health education are defined here, as follows:

Community Health Education

Community health education is the application of a variety of methods that result in the education and mobilization of community members in actions for resolving health issues and problems which affect the community. These methods include, but are not limited to, group process, mass media, communication, community organization, organization development, strategic planning, skills training, legislation, policy making and advocacy.

**The Committee believes that Health Counseling is a term that should be defined by the health counseling profession.

Community Health Educator

A community health educator is a practitioner who is professionally prepared in the field of community/public health education who demonstrates competence in the planning, implementation and evaluation of a broad range of health promoting or health enhancing programs for community groups.

D. Definitions Related to Educational Settings

The terms that relate more specifically to school health education are defined here, as follows:

Comprehensive School Health Program

A comprehensive school health program is an organized set of policies, procedures and activities designed to protect and promote the health and well-being of students and staff which has traditionally included health services, healthful school environment and health education. It should also include, but not be limited to, guidance and counseling, physical education, food service, social work, psychological services and employee health promotion.

School Health Education

School health education is one component of the comprehensive school health program which includes the development, delivery and evaluation of a planned instructional program and other activities for students preschool through grade twelve, for parents and for school staff, and is designed to positively influence the health knowledge, attitudes and skills of individuals.

School Health Services

School health services are that part of the school health program provided by physicians, nurses, dentists, health educators, other allied health personnel, social workers, teachers and others to appraise, protect and promote the health of students and school personnel. These services are designed to insure access to and the appropriate use of primary health care services, prevent and control communicable disease, provide emergency care for injury or sudden illness, promote and provide optimum sanitary conditions in a safe school facility and environment and provide concurrent learning opportunities which are conducive to the maintenance and promotion of individual and community health.

School Health Educator

A school health educator is a practitioner who is professionally prepared in the field of school health education, meets state teaching requirements and demonstrates competence in the development, delivery and evaluation of curricula for students and adults in the school setting that enhance health knowledge, attitudes and problem-solving skills.

Comprehensive School Health Instruction

Comprehensive school health instruction refers to the development, delivery and evaluation of a planned curriculum, preschool through twelve, with goals, objectives, content sequence and specific classroom lessons which includes, but is not limited to, the following major content areas:

- community health
- consumer health
- environmental health
- family life
- mental and emotional health
- injury prevention and safety
- nutrition
- personal health
- prevention and control of disease
- substance use and abuse

References

Dunn, H. 1967. *High level wellness.* Virginia: R. W. Beatty, p. 4-5.

Health education: A conceptual approach to curriculum design, school health education study. Washington, DC: 3M Education Press, p. 10.

Johns, E. B., Chair. 1973. Joint Committee on Health Education Terminology. Report of the Joint Committee on Health Education Terminology. *Health Education* 4 (6): 25.

Moss, B., Chair. 1950. Joint Committee on Health Education Terminology. *Journal of Health and Physical Education* 21 (41).

Rugen, M. 1972. *A fifty year history of the public health section of the American Public Health Association, 1922-1972.* American Public Health Association, Inc. Washington, DC, p. 9.

Williams, J. F., Chair. 1934. Report of the Health Education Section of the American Physical Education Association. Definitions of terms in health education. *Journal of Health and Physical Education* 5 (16-17): 50-51.

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Recommendations for School Health Education

Executive Summary

The need for education about health and health care is greater today than ever before. The vitality, productivity and longevity of Americans are now endangered by chronic diseases such as diabetes, cardiovascular conditions and cancer. The incidence of these diseases depends, in large part, on choices people make each day—decisions on such things as exercise, diet and the use of alcohol and drugs. There is currently great interest on the part of consumers in making *informed* choices—they want to know more and do more to keep themselves healthy.

Healthy education is a means of enabling people to assume a greater role in their own health care. Health education in the schools, kindergarten through 12th grade, can help children develop a positive attitude about health, can provide them with information on ways to take care of their health, and can help them acquire skills to make health-related decisions now and in the future.

Many parents and health and education professionals have recognized the importance of health education in the educational process. Its inclusion in the curriculum in elementary and secondary schools has been supported by numer-

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Reprinted with permission from *Recommendations for School Health Education: A Handbook for State Policymakers,* Education Commission of the States, 707 17th St., Suite 2700, Denver, CO 80202-3427.

ous local and state education agencies. However, much still needs to be done before health education is considered one of the basics.

The State School Health Education Task Force was convened by the Education Commission of the States to study school health education and to develop a policy statement exemplifying state-level commitment to health education. After discussing recent trends in health and education, reviewing data on current state efforts in school health education, and considering the major issues and problems encountered in establishing and improving health education programs in the schools, the task force formulated the following recommendations.

1. State education agencies should encourage local school boards and administrators to include health education in the curriculum in elementary and secondary schools.
2. State education agencies should promote health education as a responsibility shared by the family, school and community.
3. State education policymakers should support the development and improvement of school health education programs by utilizing the direct and indirect means available to them in their official capacity.
4. State education agencies should provide technical assistance to local districts in planning and implementing school health education programs.
5. State education agencies should promote the development of *comprehensive* school health education programs.
6. State education agencies should encourage local school boards to undertake a participatory planning process in the development of school health education programs.
7. State and local education agencies should ensure the presence of trained and qualified teachers in school health education programs.
8. State and local education agencies should assist in developing a system of information exchange about health education.
9. State education agencies should encourage the evaluation of school health education programs and assist local districts in developing appropriate evaluation processes.
10. State education agencies should encourage federal agencies to channel categorical funds in a manner that will enhance comprehensive school health education program development.

These recommendations may be viewed as suggested ways in which school health education may be developed and/or strengthened in the states.

Appendix D

Synopsis of Major Reports and Publications

Harvard School Health Education Project
Harvard School of Public Health

This project was supported under a cooperative agreement from the Centers for Disease Control through the Association of Schools of Public Health.

Produced By: American Association of School Administrators
Title/Date: *Healthy Kids for the Year 2000: An Action Plan for Schools* — 1990
Focus: Comprehensive school health education: action plan, legislative goals.
Summary: 12-step action plan for developing comprehensive health education program.

- Make health of students and staff a school priority.
- Make policy commitment to comprehensive school health education.
- Form school health education advisory committee or task force.
- Assess health, attitudes, behaviors, values and needs.
- Set goals, objectives, evaluation criteria.
- Decide on curricula.

Reprinted with permission from the Harvard School Health Education Project, Harvard School of Public Health. A. T. Lavin, G. R. Shapiro and K. S. Weill. 1992. *Creating an Agenda for School-Based Health Promotion: A Review of 25 Selected Reports*. The full report was published in the *Journal of School Health*, Vol. 62, No. 6, August 1992.

- Appoint health coordinator.
- Invest in staff wellness program.
- Provide staff development to ensure winning teaching methods.
- Seek long-term funding and commitment.
- Foster sustained community involvement.
- Ensure evaluation and accountability.

To Order: American Association of School Administrators, 1801 North Moore St., Arlington, VA 22209, 703-528-0700.

Produced By: American Medical Association (AMA)
Title/Date: *America's Adolescents: How Healthy Are They?* — 1990
Focus: Adolescent health issues; Q&A, statistics.
Summary:

- Improving adolescent health is complex because health problems are linked with educational performance, family relationships, poverty and lifestyle.
- Health problems are affecting adolescents at increasingly younger ages.
- 25% of adolescents lead "high risk" lifestyles.
- Lack of services places adolescents at greater risk.
- Biggest health threats are not biomedical, but "social morbidities" (suicide, homicide, substance abuse, pregnancy, STDs, HIV), resulting from social environment and/or behavior.
- Need to promote healthy behavior by strengthening families, schools, communities and environment.
- Need to improve adolescents' access to health care services.
- Need active agenda in adolescent health and involvement and commitment by all sectors of society.

To Order: Department of Adolescent Health Profiles NL012690, American Medical Association, 535 N. Dearborn St., Chicago, IL 60610, 1-800-621-8335
ISBN 0-89970-385-2
$10.00 (AMA members); $12.00 (non-members)

Produced By: American School Health Association; Association for the Advancement of Health Education; and Society for Public Health Education, Inc.
Title/Date: *National Adolescent Student Health Survey* — 1989
Focus: National survey of 8th and 10th graders: assessed knowledge, attitudes, behavior in eight critical health areas for youth.
Summary: Detailed tabulation of survey data on substance use, injury preven-

tion, nutrition, violence, suicide, AIDS, consumer skills. Implications and recommendations:

- Health must have higher priority in school curriculum and public policy.
- Planned, sequential health instruction (K-12), supported by other school health promotion components, essential.
- Providing information alone is not enough; instruction should develop skills in coping, stress management, decision making.
- More attention to elementary grades health instruction needed.
- Curriculum development, successful school health programs result from collaborative efforts by school personnel, parents, community groups, state agencies, businesses.
- Gender, ethnic and religious differences should be considered during health instruction.
- Ongoing health instruction assessment critical.

To Order: American School Health Association, Publications Department, P.O. Box 708, Kent, OH 44240, 216-678-1601.
$12.50 (ASHA members); $14.50 (non-members)

Produced By: American School Health Association (ASHA) and Southwest Center for Prevention Research, University of Texas Health Science Center at Houston
Title/Date: *School Health in America: An Assessment of State Policies to Protect and Improve the Health of Students*, Fifth Edition — 1989
Focus: State policies for school health promotion.
Summary: Summary of state policies for school health services, education, environment, food services, physical education, guidance and counseling and school psychology. In each area, specific requirements are tabulated by state, with additional information on programs and personnel.

- Schools provide focal point for influencing students' health more than any other community setting.
- Comprehensive school health program should include:
  - — multidisciplinary team of educators and service providers
  - — worksite health promotion programs for school personnel
  - — integrated programming between schools and community agencies

To Order : American School Health Association, Publications Department, P.O. Box 708, Kent, OH 44240, 216-678-1601.
ASHA Publ. #G005-1190
ISBN 917160-20-7
$15.00 (ASHA members); $18.00 (non-members)

Produced by: Carnegie Council on Adolescent Development, Task Force on Education of Young Adolescents
Title/Date: *Turning Points: Preparing American Youth for the 21st Century* — 1989
Focus: Early-adolescent well-being: risks, strategies.
Summary: One quarter of adolescents ages 10 to 17 may be vulnerable to multiple high-risk behaviors like school failure, substance use, early unprotected intercourse.
Middle schools should:

- improve academic performance by fostering health and fitness of youth
- provide health coordinator in every school
- provide access to health care and counseling services
- connect with communities to share responsibility, establish partnerships, use resources, and ensure student access to health services and activities.

To order: Carnegie Council on Adolescent Development, P.O. Box 753, Waldorf, MD 20604, 202-429-7979.
$9.95

Produced by: Center for the Study of Social Policy, with support from the Annie E. Casey Foundation
Title/Date: *Kids Count Data Book: State Profiles of Child Well-Being* — 1991
Focus: Annual, statistical, state-by-state profile of child well-being in America
Summary: Data on 8 indicators organized to provide U.S., Minority and State Profiles.
Major conclusions:

- Children at greater risk today than at beginning of 1980s.
- Child poverty increased and persists.
- Births to unmarried teenagers rose.
- Chances that teenager will die by accident, suicide or murder increased over the decade.

To order : The Center for the Study of Social Policy, 1250 I St. NW, Suite 503, Washington, DC 20005, 202-371-1565.
$12.50

Produced by: Children's Defense Fund
Title/Date: *The State of America's Children 1991* —1991
Focus: Annual overview of status of American children's well-being: statistics, trends, strategies; current CDF legislation.
Summary:

- Current status in childcare, education, health, housing, employment poses threat to nation.
- Need to create political will, crusade for well-being of American children.
- Children with unattended health/family problems unlikely to perform at their best.
- School can help students achieve by ensuring accessibility of supports like health care, child protective services and mental health services.
- School is natural hub for collaborative service delivery systems.
- Developing these systems will depend on willingness of school districts and social service agencies to lower bureaucratic walls.

To order: Children's Defense Fund, 122 C St. NW, Washington, DC 20001, 202-628-8787.
ISBN: 0-938008-86-2
$14.95

Produced by: Congress of the United States, Office of Technology Assessment (OTA)
Title/Date: *Adolescent Health —Volume I: Summary and Policy Options; Volume II: Background and the Effectiveness of Selected Prevention and Treatment Programs; Volume III: Crosscutting Issues in the Delivery of Health and Related Services* — 1991
Focus: Physical, emotional, behavioral health status of American adolescents; statistical charts, major findings, strategies for Congress.
Summary:

- Suggests three policy options to Congress:
  - — take steps to improve adolescents' access to appropriate health and related services;
  - — take steps to restructure, invigorate federal government's efforts to improve adolescents' health;
  - — support efforts to improve adolescents' environments.
- For each major policy option, several specific strategies are discussed.
- Specific findings relate to roles of families, schools, federal agencies; financial and legal access to health services.

- Parents, schools, health care workers and systems, and adolescents themselves are given little guidance and few resources to enable them to be supportive of adolescents.
- A more sympathetic, supportive approach to adolescents is needed.

To order: Superintendent of Documents, Government Printing Office, Washington, DC 20402-9325, 202-783-3238.
Volume I: S/N 052-003-01234-1; $9.50
Volume II: S/N 052-003-01235-9; $30.00
Volume III: S/N 052-003-01236-7; $13.00

Produced by: Council of Chief State School Officers
Title/Date: *Beyond the Health Room* — 1991
Focus: Youth health needs, comprehensive school health programs, and HIV infection.
Summary:

- Because health and learning interrelated, school health being discussed in context of school reform.
- State education agencies can be catalysts to help communities make critical link between health and education, discuss role of schools in meeting youths' health needs.
- Effective school strategies must look beyond academics to health deficits that limit school performance.

To order: Resource Center on Educational Equity, Council of Chief State School Officers, 400 North Capitol St. NW, Suite 379, Washington, DC 20001, 202-393-8159.
$10.00

Produced by: Joy G. Dryfoos
Title/Date: *Adolescents at Risk: Prevalence and Prevention* — 1990
Focus: Summary of prevalence; overview of programs to prevent adolescent pregnancy, delinquency, substance abuse, school failure.
Summary:

- Of youth ages 10 to 17, 7 million (1/4) are at high risk for encountering serious problems; another 7 million are borderline high-risk.
- Schools should be focal institution in prevention to assure academic achievement and to provide social support and health programs.
- Two common aspects of many successful programs:
  - — intensive individualized attention
  - — communitywide multiagency collaborative approach

- More research not necessary to take action, mount campaign.
- Money and commitment are bottom lines.
- Strategy for assisting high-risk youth based on:
  - interrelatedness of problems
  - need for early, sustained intervention
  - importance of one-on-one intensive education
  - importance of basic educational skills, social skills and experiential education to function in adult world.

To order : Oxford University Press, 200 Madison Ave., New York, NY 10016, 1-800-451-7556.
Hardcover: ISBN 0-19-505771-6; $29.95 + s&h
Paperback: ISBN 0-19-507268-5; $14.95 + s&h

Produced by: Sylvia Ann Hewlett
Title/Date: *When the Bough Breaks: The Cost of Neglecting Our Children* — 1991
Focus: Plight of America's children; national economic impact of neglect, devaluation of children's health and well-being; call to action.
Summary:

- Such factors as misallocation of national resources and dearth of parenting (due to divorce and working parents) have led to child neglect on a massive scale.
- This child neglect, in turn, has caused an increasingly violent society with an underprepared labor force and a threatened national economy.
- Multifaceted Action Plan includes issues of parenting leave, childcare, tax reform, family-friendly workplace, volunteerism.
- Describes cost-effective private programs for children that are key to our economic survival.
- Not just issues of economics, but also humanity—we must reach beyond our self-interest to do the right thing.
- Among ten key policy initiatives to improve life-chances of children is "Educational Reform":
  - — We need significant new money for programs that target disadvantaged youth.
  - — We need to spend relatively more in the early years, where society gets relatively high rate of return.

To order: Basic Books, division of HarperCollins Publishers, 10 E. 53rd St., New York, NY 10022, 212-207-7057.
ISBN 0-465-09165-2
Bookstores: $22.95

Produced by: Massachusetts Department of Education
Title/Date: *Educating the Whole Student: The School's Role in the Physical, Intellectual, Social and Emotional Development of Children* — 1990
Focus: School involvement in student development; strategies, recommendations.
Summary:

- School must work with whole community to ensure optimal physical, social, emotional development of all children and access to needed prevention, intervention services.
- Student's self-esteem and academic achievement interdependent.
- Each school district needs to:
  - maximize parent involvement
  - offer flexibility in curricula to meet needs of all students
  - create opportunities for all students to develop positive relationship with adult or older student
  - reinforce responsible student decision-making, positive behavior change
  - offer ongoing staff training, support
  - ensure active role for school counseling personnel
  - develop partnerships with community agencies

To order: Massachusetts Department of Education, Bureau of Student Development and Health, 1385 Hancock St., Quincy, MA 02169, 617-770-7580.
Publ. #16,215
Free of charge.

Produced by: Michigan Departments of Education, Mental Health, Public Health, Social Services, State Police; Office of Highway Safety Planning; Office of Substance Abuse Services
Title/Date: *Michigan Model for Comprehensive School Health Education: Implementation Plan for Year 1991* — 1990
Focus: Background, present status, future objectives and plans for Michigan Model; summary data of implementation (including funding and support issues); focus on substance abuse component.
Summary:

- Overview of rationale, development, and implementation of state "wellness curriculum," administered by State Interagency Steering Committee through regional coordinators.
- Intent of the Michigan Model was to utilize the best features of existing curricula with adapted materials and to mobilize and coordinate federal, state and local resources behind one curriculum.

- Curriculum includes safety and first aid; nutrition; family, consumer, community, personal, emotional and mental health; growth and development; substance use and abuse; disease prevention and control.

To order: Attn: Don Sweeney, Michigan Model, Center for Health Promotion, 3423 North Logan, Lansing, MI 48909, 517-335-8389.
Free of charge.

Produced by: National Commission for Drug-Free Schools
Title/Date: *Toward a Drug-Free Generation: A Nation's Responsibility* — 1990
Focus: Lists objectives and makes recommendations for schools, colleges to be drug-free by year 2000.
Summary: Recommendations for schools, colleges, families, communities, government:

- Schools should provide drug prevention programs for all students K-12.
- Colleges should conduct mandatory drug education for all students.
- Schools should develop better linkages with community services.
- Communities should keep schools open after school hours and during summer as site for activities.
- Each community should establish a drug-prevention task force.
- Schools and colleges should provide moral leadership in war on drugs.

To order: National Clearinghouse for Alcohol and Drug Information (NCADI), P.O. Box 2345, Rockville, MD 20852, 1-800-729-6686.
Free of charge.

Produced by: National Commission on Children
Title/Date : *Beyond Rhetoric: A New American Agenda for Children and Families* — 1991
Focus: Findings, recommendations, blueprint of a national policy for American children and families; tables, cost projections, funding options.
Summary:

- Commission's agenda includes ensuring income security, improving health, increasing educational achievement, supporting the transition to adulthood, strengthening and supporting families, protecting vulnerable children and their families, making policies and programs work and creating a moral climate for children.
- Echoes national education goals for year 2000 (see *The National Education Goals Report*, 1991), most notably goal that all children will enter school ready to learn.

- Health education programs in schools are important for helping children learn about risks and consequences of various unhealthful behaviors, as well as how to promote their own health.
- The report includes dissenting views by a subgroup of nine commissioners, whose recommendations include greater emphasis on increased support of abstinence education to reduce the spread of STD and AIDS and the rate of unwed teenage pregnancies.

To order: National Commission on Children, 1111 18th St. NW, Suite 810, Washington, DC 20036, 202-254-3800.
1st copy free; additional copies: $5 each (1st class)
Also available: 100 pg. summary

Produced by: National Commission on the Role of the School and the Community in Improving Adolescent Health, convened by National Association of State Boards of Education (NASBE) and American Medical Association (AMA)
Title/Date: *Code Blue: Uniting for Healthier Youth* — 1990
Focus: Health crisis of U.S. adolescents; background, recommendations.
Summary:

- State of adolescent health in America constitutes a national emergency.
- Health status and school performance are interrelated.
- Four major recommendations:
    - — Guarantee all adolescents access to health care regardless of ability to pay.
    - — Make community frontline in battle for adolescent health.
    - — Organize services around people, not people around services.
    - — Urge schools to play stronger role in improving adolescent health.
- "Call to Action" suggests specific strategies for federal and state governments, educators, health and social services, businesses, media, religious and community groups and individual citizens.

To order: NASBE, 1012 Cameron St., Alexandria, VA 23314, 703-684-4000.
$13.50

Produced by: National Education Goals Panel
Title/Date: *Building a National of Learners: The National Education Goals Report* — 1991
Focus: Highlights current status in reaching National Education Goals; notes data gaps; summarizes proposals for creating more effective indicators.
Summary: Summarizes progress in achieving National Education Goals on both federal and state levels. By the year 2000:

1. All children in America will start school ready to learn.
2. High school graduation rate will increase to at least 90%.
3. American students will leave grades 4, 8, 12 having demonstrated competency in challenging subject matter, including English, mathematics, science, history and geography; every school in America will ensure that all students learn to use their minds well, so they may be prepared for responsible citizenship, further learning and productive employment in our modern economy.
4. U.S. students will be first in the world in science and mathematics achievement.
5. Every adult American will be literate and will possess the knowledge and skills necessary to compete in a global economy and exercise the rights and responsibilities of citizenship.
6. Every school in America will be free of drugs and violence and will offer a disciplined environment conducive to learning.

To order: National Education Goals Panel, 1850 M St. NW, Suite 270, Washington, DC 20036, 202-632-0953.
Free of charge.

Produced by: National Forum on the Future of Children and Families, Institute of Medicine, National Research Council, National Academy of Sciences
Title/Date: *Social Policy for Children and Families: Creating an Agenda* — 1989
Focus: Review of 22 recent reports on health status of children and families; policy recommendations.
Summary: Five major themes emerged:

- interrelatedness of the problems
- need for additional resources
- economic, demographic imperatives
- role of private sector
- cost-effectiveness of prevention

Five "next steps" suggested:

- set priorities for children and families
- plan staging of policies and activities
- provide effective delivery systems
- finance the solutions
- ensure quality and accountability

To order: National Forum on the Future of Children and Families, 2101 Constitutional Ave. NW, Washington, DC 20418, 202-334-1935.

Produced by: National Health/Education Consortium, convened by the National Commission to Prevent Infant Mortality and the Institute for Education Leadership
Title/Date: *Crossing the Boundaries Between Health and Education* — 1990
Focus: Relationship between education and health.
Summary:

- Six key points:
  - Health affects education.
  - Education affects health.
  - Technological advances are not enough.
  - Families have critical role.
  - "At risk" does not mean "doomed."
  - System changes are needed.
- Health and education systems often work in isolation from each other; need more collaboration.
- Need reorganization, integration of health and education policies and programs.
- Need to build national will to make children a priority at federal, state and local levels.

To order : National Commission to Prevent Infant Mortality, Switzer Building, Room 2014, 330 C St. SW, Washington, DC 20201, 202-472-1364.
$9.00

Produced by: National School Boards Association (NSBA)
Title/Date: *School Health: Helping Children Learn* — 1991
Focus: School Leader's Guide to comprehensive school health programs: rationale, implementation plan, checklists, case studies.
Summary:

- Documents the need for school health programs.
- Analyzes extent to which one hundred school districts incorporated four

broad components of comprehensive school health programs (program philosophy, health instruction, health services, healthy school environment) into their programs.

- Discusses specific policies, costs, training and evaluation.
- Ten-step planning, implementation process of school health program:
  - Determine priority of health and well-being within community.
  - Commit school board and administration to supporting school health program.
  - Assess needs, wants of community.
  - Enlist community support, establish School Health Advisory Committee.
  - Assign school health program coordinator.
  - Choose right curriculum.
  - Train teachers and school staff members.
  - Link instruction and health services.
  - Concentrate on healthy school environment.
  - Plan for evaluation and accountability.

To order: National School Boards Association, 1680 Duke St., Alexandria, VA 22314, 703-838-6722.
$15.00 + s&h

Produced by: Lucile Newman and Stephen L. Buka; Education Commission of the States

Title/Date: *Every Child a Learner: Reducing Risks of Learning Impairment During Pregnancy and Infancy* — 1990

Focus: Synthesis of major research studies; identification of primary preventable conditions associated with development of learning impairment in children birth to age 5.

Summary :

- School-age health education is important to emphasize benefits of health promotion and to reduce behaviors that put young women and their future babies at risk.
- School health education assists young people in their role as students and later as parents themselves.
- It is important to concentrate on cognitive development of youth, coupled with familial support, in order to lessen some disadvantages of poverty and low birthweight and to avoid some intellectual impairment.

- Prevention strategies specific to education:
  - — vigorous K-12 health education, including self-care, nutrition, substance abuse and sex education
  - — reproductive health with self-esteem, decision making, and accessible contraception education
  - — expand comprehensive, community-based early childhood programs in compliance with Education of Handicapped Act Amendment (1963)

To order: Education Commission of the States Distribution Center, 707 17th St., Suite 2700, Denver, CO 80202-3427, 303-299-3692.
#SI-90-9
$5.00

Produced by: Lisbeth B. Schorr with Daniel Schorr
Title/Date: *Within Our Reach: Breaking the Cycle of Disadvantage* — 1989
Focus: Successful programs to improve well-being of the disadvantaged.
Summary:

- Documents child and adolescent troubles and the "high cost of rotten outcomes."
- Reviews a broad range of effective intervention programs.
- Enough research has been done to plan effective programs.
- Many relevant parties not aware of newly emerging insights, especially from outside their field.
- Biggest single need is for broader base of understanding of what can and should be done.
- Successful programs are intensive, comprehensive, flexible, family- and community-oriented, conducted by staff with time and skills to develop relationships of respect and collaboration.

To order: Anchor Books, Doubleday, New York, NY, 1-800-223-6834 (x 9479) or 212-492-9479.
ISBN 0-385-24244-1
Bookstores: $9.95; bulk rate: $2.50; UPS ground service: $4.50

Produced by: U.S. Department of Education
Title/Date: *America 2000: An Education Strategy* — 1991
Focus: Action plan to achieve six national education goals.
Summary: Four strategies to move toward president's and governors' six

national education goals to be reached by year 2000 (see *Building a Nation of Learners: The National Education Goals Report*, 1991):

- "Radically improve" and make more accountable today's schools.
- Invent a "New Generation of American Schools," funded by businesses and other donors; 535 by 1996, thousands by 2000.
- Those in workforce must continue to learn so that a "Nation at Risk" can become a "Nation of Students."
- Communities must become committed to their schools and create an environment conducive to learning.

To order: U.S. Department of Education, America 2000, 400 Maryland Ave. SW, Washington, DC 20202-0498, 1-800-USA-LEARN.
Free of charge.

Produced by: U.S. Department of Health and Human Services, Public Health Service
Title/Date: *Healthy People 2000: National Health Promotion and Disease Prevention Objectives* — 1990
Focus: Strategy for improving nation's health during 1990s.
Summary:

- Presents 300 specific, measurable objectives, including: "Increase to at least 75% proportion of elementary and secondary schools that provide planned, sequential K-12 quality school health education."
- Age-appropriate health education curricula can change attitudes, behavior.
- Schools can be used to facilitate children's access to basic health services.
- School health education can foster healthful behaviors and help prevent hazardous ones, especially smoking, nutrition and physical activity.
- In partnership with parents and community groups, school can create health promotion programs, enhance health education curricula, service as resource to adults to community.

To order: Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402, 202-783-3238.
DHHS Publication #(PHS) 91-50213
Summary report: S/N 017-001-00473-1; $9.00
Full report: S/N 017-001-00474-0; $31.00

Produced by: West Virginia Task Force on School Health
Title/Date: *Building a Healthy Future* — 1990
Focus: New statewide plan: Comprehensive school health issues, programs, implementation, recommendations.
Summary:

- Develop K-12 comprehensive school health education curriculum and teacher's guide, incorporating concepts, activities from best existing guides.
- Establish school-based health centers with community linkages to ensure student access to multiple health services.
- Make centers available for community health education.
- Increase number of school nurses.
- County board of education, with school improvement councils, should periodically devise, review plans to ensure healthy school climate.
- School food services should reflect *Dietary Guidelines for Americans*; food providers should collaborate with educators.
- Establish state coordinator and other trained coordinators for physical education.
- Conduct periodic fitness testing with complete health appraisals for every child K-12.
- Establish effective personal/psychological counseling programs at all grade levels, particularly elementary.
- After obtaining information from school improvement councils, county board of education should work with community medical providers, health education resources, labor leaders to address health needs of whole community, especially children.
- Establish wellness programs for school personnel.

To order: Attn: Lenore Zedosky, West Virginia Department of Education, 1900 Kenewli Blvd., Room B309, Capital Complex, Charleston, WV 25305, 304-348-8830.
1st 10 copies free

Effective Policies for Health Education

Effective policies for health education have the following characteristics:

1. They use current scientific information, such as:
    - CDC guidelines
    - correct modes of disease transmission
    - appropriate theoretical models
2. They adhere to regulations and laws of designated enforcement agencies, including:
    - federal laws
    - state and county regulations
3. They comply with other policies or guidelines, including:
    - funding agency requirements
    - internal preexisting policies, such as personnel manuals, enrollment criteria and health care procedures
    - policies of other collaborating agencies, such as school systems, housing projects, public health departments and health care providers
4. They are enforceable.
5. They are updated periodically.

6. They are written down and distributed to all persons who are affected by them, including:
   - staff of agency
   - consultants
7. They involve the key people in the community in their construction, format, review and distribution.

Characteristics of Appropriate HIV/AIDS Education Programs

The following characteristics describe appropriate HIV/AIDS education programs:

1. They treat HIV and AIDS as a public health issue and not a moral or criminal issue.
2. They are developmentally appropriate for the age and cognitive and social stages of children.
3. They are part of a comprehensive school health program for kindergarten through grade 12.
4. They are culturally sensitive and culturally competent.
5. They are conducted by trained teachers.
6. They include open discussions about transmission routes and prevention strategies.
7. They are linked to the community services available for assisting those who are infected or at risk for infection.
8. They are continually updated.

Developed by K. Miner for Emory AIDS Training Network, 1990.

Collaborative Policy Development

The way you develop policies about communicable diseases such as HIV, and the way you educate others about those policies, is critically important. Some suggestions follow:

- Develop policies collaboratively with health and education officials.
- Review and revise your policies annually.
- Write policies in clear language.

Ten Steps in Collaborative Policy Development

Step 1: Gather existing information on state and federal laws and model policies.

Step 2: Identify sources for assistance.

Step 3: Form the committee that will develop the policy, including:
  - community representatives
  - medical and legal experts
  - school representatives

Step 4: Educate the committee.

Step 5: Identify the policy issues not covered by state and/or federal laws.

Step 6: Prepare a first draft of the policy for internal review.

Step 7: Prepare the final draft of the policy.

Step 8: Present the draft to individuals responsible for adopting the policy.

Step 9: Inform the community about the policy.

Step 10: Set guidelines for periodically reviewing and evaluating the policy.

Four Key Points

1. A policy development process is an educational process.
2. The process of policy making may be as important as the policy itself.
3. Effective policies are "homegrown."
4. A policy is only as good as the message it conveys to the general public.

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Appendix F

A Framework for the Development of Competency-Based Curricula for Entry Level Health Educators

Responsibility I —Assessing Individual and Community Needs for Health Education

Competency A: Obtain health-related data about social and cultural environments, growth and development factors, needs and interests.

Sub-Competencies:

1. Select valid sources of information about health needs and interests.
2. Utilize computerized sources of health-related information.
3. Employ or develop appropriate data-gathering instruments.
4. Apply survey techniques to acquire health data.

Competency B: Distinguish between behaviors that foster and those that hinder well-being.

Sub-Competencies:

1. Investigate physical, social, emotional and intellectual factors influencing health behaviors.
2. Identify behaviors that tend to promote or compromise health.
3. Recognize the role of learning and affective experiences in shaping patterns of health behavior.

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Competency C: Infer needs for health education on the basis of obtained data.
Sub-Competencies:
1. Analyze needs assessment data.
2. Determine priority areas of need for health education.

Responsibility II—Planning Effective Health Education Programs

Competency A: Recruit community organizations, resource people and potential participants for support and assistance in program planning.
Sub-Competencies:
1. Communicate need for the program to those who will be involved.
2. Obtain commitments from personnel and decision makers who will be involved in the program.
3. Seek ideas and opinions of those who will affect or be affected by the program.
4. Incorporate feasible ideas and recommendations into the planning process.

Competency B: Develop a logical scope and sequence plan for a health education program.
Sub-Competencies:
1. Determine the range of health information requisite to a given program of instruction.
2. Organize the subject areas comprising the scope of a program in logical sequence.

Competency C: Formulate appropriate and measurable program objectives.
Sub-Competencies
1. Infer educational objectives facilitative of achievement of specified competencies.
2. Develop a framework of broadly stated, operational objectives relevant to a proposed health education program.

Competency D: Design educational programs consistent with specified program objectives.
Sub-Competencies:
1. Match proposed learning activities with those implicit in the stated objectives.
2. Formulate a wide variety of alternative educational methods.
3. Select strategies best suited to implementation of educational objectives in a given setting.

4. Plan a sequence of learning opportunities building upon and reinforcing mastery of preceding objectives.

Responsibility III—Implementing Health Education Programs

Competency A: Exhibit competence in carrying out planned educational programs.

Sub-Competencies:

1. Employ a wide range of educational methods and techniques.
2. Apply individual or group process methods as appropriate to given learning situations.
3. Utilize instructional equipment and other instructional media effectively.
4. Select methods that best facilitate practice of program objectives.

Competency B: Infer enabling objectives as needed to implement instructional program in specified settings.

Sub-Competencies:

1. Pretest learners to ascertain present abilities and knowledge relative to proposed program objectives.
2. Develop subordinate measurable objectives as needed for instruction.

Competency C: Select methods and media best suited to implement program plans for specific learners.

Sub-Competencies:

1. Analyze learner characteristics, legal aspects, feasibility and other considerations influencing choices among methods.
2. Evaluate the efficacy of alternative methods and techniques capable of facilitating program objectives.
3. Determine the availability of information, personnel, time and equipment needed to implement the program for a given audience.

Competency D: Monitor educational programs, adjusting objectives and activities as necessary.

Sub-Competencies:

1. Compare actual program activities with the stated objectives.
2. Assess the relevance of existing program objectives to current needs.
3. Revise program activities and objectives as necessitated by changes in learner needs.
4. Appraise applicability of resources and materials relative to given educational objectives.

Responsibility IV—Evaluating Effectiveness of Health Education Programs

Competency A: Develop plans to assess achievement of program objectives.
Sub-Competencies:
1. Determine standards of performance to be applied as criteria of effectiveness.
2. Establish a realistic scope of evaluation efforts.
3. Develop an inventory of existing valid and reliable tests and survey instruments.
4. Select appropriate methods for evaluating program effectiveness.

Competency B: Carry out evaluation plans.
Sub-Competencies:
1. Facilitate administration of the tests and activities specified in the plan.
2. Utilize data collecting methods appropriate to the objectives.
3. Analyze resulting evaluation data.

Competency C: Interpret results of program evaluation.
Sub-Competencies:
1. Apply criteria of effectiveness to obtained results of a program.
2. Translate evaluation results into terms easily understood by others.
3. Report effectiveness of educational programs in achieving proposed objectives.

Competency D: Infer implications from findings for future program planning.
Sub-Competencies:
1. Explore possible explanations for important evaluation findings.
2. Recommend strategies for implementing results of evaluation.

Responsibility V—Coordinating Provision of Health Education Services

Competency A: Develop a plan for coordinating health education services.
Sub-Competencies:
1. Determine the extent of available health education services.
2. Match health education services to proposed program activities.
3. Identify gaps and overlaps in the provision of collaborative health services.

Competency B: Facilitate cooperation between and among levels of program personnel.

Sub-Competencies:

1. Promote cooperation and feedback among personnel related to the program.
2. Apply various methods of conflict reduction as needed.
3. Analyze the role of health educator as liaison between program staff and outside groups and organizations.

Competency C: Formulate practical modes of collaboration among health agencies and organizations.

Sub-Competencies:

1. Stimulate development of cooperation among personnel responsible for community health education programs.
2. Suggest approaches for integrating health education within existing health programs.
3. Develop plans for promoting collaborative efforts among health agencies and organizations with mutual interests.

Competency D: Organize inservice training programs for teachers, volunteers and other interested personnel.

Sub-Competencies:

1. Plan an operational, competency-oriented training program.
2. Utilize instructional resources that meet a variety of inservice training needs.
3. Demonstrate a wide range of strategies for conducting inservice training programs.

Responsibility VI—Acting as a Resource Person in Health Education

Competency A: Utilize computerized health information retrieval systems effectively.

Sub-Competencies:

1. Match an information need with the appropriate retrieval system.
2. Access principal on-line and other databased health information resources.

Competency B: Establish effective consultative relationships with those requesting assistance in solving health-related problems.
Sub-Competencies:
1. Analyze parameters of effective consultative relationships.
2. Describe special skills and abilities needed by health educators for consultation activities.
3. Formulate a plan for providing consultation to other health professionals.
4. Explain the process of marketing health education consultative services.

Competency C: Interpret and respond to requests for health information.
Sub-Competencies:
1. Analyze general processes for identifying the information needed to satisfy a request.
2. Employ a wide range of approaches in referring requesters to valid sources of health information.

Competency D: Select effective resource materials for dissemination.
Sub-Competencies:
1. Assemble educational material of value to the health of individuals and community groups.
2. Evaluate the worth and applicability of resource materials for given audiences.
3. Apply various processes in the acquisition of resource materials.
4. Compare different methods for distributing educational materials.

Responsibility VII—Communicating Health and Health Education Needs, Concerns and Resources

Competency A: Interpret concepts, purposes and theories of health education.
Sub-Competencies:
1. Evaluate the state of the art of health education.
2. Analyze the foundations of the discipline of health education.
3. Describe major responsibilities of the health educator in the practice of health education.

Competency B: Predict the impact of societal value systems on health education programs.
Sub-Competencies:
1. Investigate social forces causing opposing viewpoints regarding health education needs and concerns.

2. Employ a wide range of strategies for dealing with controversial health issues.

Competency C: Select a variety of communication methods and techniques in providing health information.

Sub-Competencies:

1. Utilize a wide range of techniques for communicating health and health education information and education.
2. Demonstrate proficiency in communicating health information and health education needs.

Competency D: Foster communication between health care providers and consumers.

Sub-Competencies:

1. Interpret the significance and implications of health care providers' messages to consumers.
2. Act as liaison between consumer groups and individuals and health care provider organizations.

Contributors to Volume Two

Beverly J. Berkin, MA, CHES, is a nationally certified health education specialist and an inveterate educator. She has taught health education, human sexuality, family life education, biology and advanced placement biology at various grade levels. She has also served as the district chairperson in health education K-12 for the Cold Spring Harbor School District, Long Island, New York, and as a consultant to various school districts and corporations, including Optical Data Corporation and ABC News Interactive.

She is a Metropolitan Life "Healthy Me" Award Winner and a two-time winner of the National School Board's "Winning Curriculum Ideas" in health education and peer leadership programs. A national and international presenter in health education, she remains a strong advocate for peer helping programs, having instituted her first such program in 1977. She is an active member of the American School Health Association and an active member and contributing columnist to the journal of the New York State Federation of Professional Health Educators. She participates in and supports the National Peer Helpers Association and the American Medical Association's National Adolescent Health Promotion Network, among several others.

David A. Birch, PhD, CHES, is an associate professor in the Department of Applied Health Science at Indiana University in Bloomington. He was formerly director of health education outreach programs in the Department of Health Education at Pennsylvania State University in University Park, Pennsylvania. He has extensive experience in developing and conducting teacher training programs in health education. He serves as a member of the board of directors of the American School Health Association and the editorial boards of both the *Journal of Health Education* and *Wellness Perspectives*. He has also served as secretary of the Board of Commissioners of the National Commission for Health Education Credentialing. He has worked at the state level for the Maine Department of Educational and Cultural Services and has more than ten years of public school teaching experience.

W. P. Buckner, Jr., HSD, CHES, is health coordinator and a professor of health education and allied health at the University of Houston. He also serves as an adjunct professor at Baylor College of Medicine, Division of Allied Health Sciences, Department of Community Medicine, in Houston. He has directed numerous workshops and seminars focusing on human sexuality, death education and multicultural health issues and also serves as a health education consultant for institutions of higher education, hospitals, community agencies and public schools. He has served as an associate editor for the *Journal of Health Education* and a guest editor of two special issues related to minority health concerns and community health programs. In 1992, he was elected president of the Association for the Advancement of Health Education.

Arvil Burks, EdD, CHES, chairman emeritus of the Department of Health Education, University of Central Arkansas, Conway, is well recognized for his years of service and expertise in the implementation of teacher inservice training. He has been involved in conducting inservice training at the local, regional and national levels throughout his professional career and has published in scholarly journals and presented at professional meetings. He has been the recipient of several awards, including the Growing Healthy Pioneer Award from the National Center for Health Education and the American Lung Association; the Layman of the Year—Shuffield Award of the Arkansas Medical Society; the Honor Award of the Arkansas HPERD; the Layman Award of the Arkansas State Dental Society; and the Professional Service to Health Education Award presented by the American Association for Health Education.

Peter A. Cortese, DrPH, CHES, holds a master's and a doctoral degree in public health with an emphasis in school health. He began his professional work as a high school teacher in Keewatin, Minnesota. Following graduate studies at UCLA, he taught in the Los Angeles secondary schools and community colleges and then at the university level. He has been a professor and chair of the Health Science Department at California State University, Long Beach, and is associate dean emeritus of the university's College of Health and Human Services.

He has also served as associate director of the School Health Education Study; director of the Office of Comprehensive School Health, U.S. Department of Education; vice-chair and chair of the National Commission for Health Education Credentialing; chair of the Coalition of National Health Education Organizations; cochair of the Terminology in Health Education Committee; chair of the writing committee that produced "Comprehensive School Health Education—As Defined by the Major National Health Organizations"; and chair of the Implementation Committee for California State Department of Education's "Framework for Health Instruction in California Schools."

In addition, he has been the chair of the School Health Education and Services Section of the American Public Health Association, president of the American Association for the Advancement of Health Education, and president of the Southern California Chapter of the Society for Public Health Education. He has received honor awards from all of the above groups.

He has been actively involved in the work of many voluntary and other public health agencies, has written several juried journal articles and is listed as one of 27 "Key Leaders in Health Education" in the Eta Sigma Gamma Monograph Series.

Judy C. Drolet, PhD, CHES, FASHA, received her secondary teaching credential and master's degree in health science from San Francisco State University and her doctorate in health education from the University of Oregon. She is a Certified Health Education Specialist and fellow of the American School Health Association. She began teaching health education courses in 1975. Recent course emphases include professional preparation, sexuality education methods and issues, mental health and foundations of health education. For the past decade, she has participated in professional preparation through her teaching, as coordinator of more than twenty graduate teaching assistants, and by directing master's and doctoral student research as a professor in the Department of Health Education at Southern Illinois University at Carbondale. She has been elected to the national board of directors of the Association for the Advancement of Health Education and the American School Health Association and national vice-president of Eta Sigma Gamma. She received national distinguished service awards from Eta Sigma Gamma and the American

School Health Association. She is coauthor of *Are You Sad Too? Helping Children Deal with Loss and Death* (ETR Associates, 1993).

M. Joycelyn Elders, MD, was director of the Arkansas Department of Health prior to her appointment to the post of Surgeon General. She has served as president of the Association of State and Territorial Health Officers and on the boards of many service organizations. She is a graduate of the University of Arkansas Medical School, where she served as professor of pediatrics. She has also received an honorary doctorate of medical sciences from Yale University. She has appeared on nationwide television and has written more than 150 articles for medical research publications.

Emogene Fox, EdD, CHES, is associate professor and chair of the Department of Health Education at the University of Central Arkansas in Conway. She is recognized for her teaching, research and publications, grantsmanship and professional service. She has taught in the public schools and has been recognized as one of the University of Central Arkansas's Five Finalists in Teaching Excellence. As a faculty member, she has been involved in inservice training recruitment, planning and conducting at the state, regional and national levels. She has written numerous grant proposals and has received funding for four grants that involved teacher inservice training. She has authored three books that involve school health curricula and served as project coordinator for the Arkansas Parent Teacher Association (PTA) Comprehensive Health Education Project (funded by the Bureau of Health Education and National PTA), showcasing the project during regional conferences nationwide. Appointed by the Governor of Arkansas, she served 12 years on a state board that approved funding for drug and alcohol prevention and education programs statewide. She is the author of *Into Adolescence: Making and Keeping Friends* (ETR Associates, 1990).

Robert S. Gold, PhD, DrPH, FASHA, is a principal investigator and senior science advisor at Macro. He is also professor of health education and director of the Laboratory of Health Promotion Research and Development in the Department of Health Education at the University of Maryland in College Park. He is the founder of the Minority Health Research Center and the Interdisciplinary Health Research Laboratory at the university. He holds a doctorate degree in health education with major emphases in computer science and research design and a doctor of public health degree in community health practice, with major areas of study in program evaluation and epidemiology.

He has served as acting chief of the Prevention Policy Branch, director of the 1990 Disease Prevention and Health Promotion Initiative, and director of the School Health Initiative in the Office of Disease Prevention and Health Promotion, U.S. Public Health Service. He has also served as principal investigator on the Minority Oral Health Improvement Program (funded by Colgate), and has served as director of two National Cancer Institute SBIR Phase I studies. He has chaired two consensus meetings for the Division of Cancer Prevention and Control, Cancer Control Sciences Program of the National Cancer Institute. While in the Office of Disease Prevention and Health Promotion, he also initiated and directed the *National Adolescent Student Health Survey* and served as project officer on the *National Children and Youth Fitness Studies* (NCYFS I and II) and the *National School Health Education Evaluation Study*.

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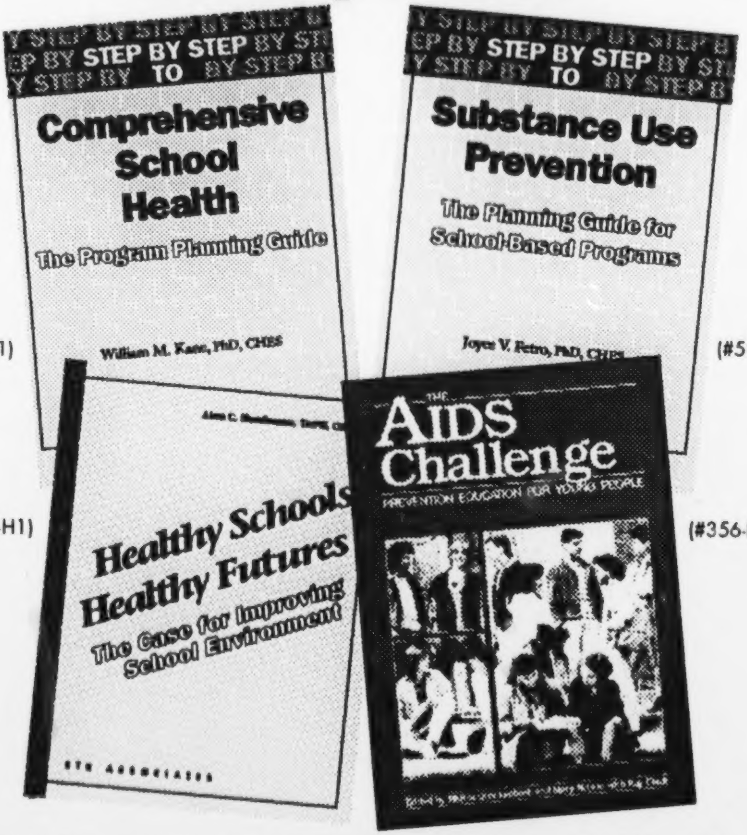
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